

SEARCH REQUEST FORM

119108

Requestor's Name: _____ Serial Number: _____
Date: _____ Phone: _____ Art Unit: _____

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

STAFF USE ONLY

Date completed: 4/19/00
Searcher: _____
Terminal time: _____
Elapsed time: 15 + 20
CPU time: _____
Total time: _____
Number of Searches: _____
Number of Databases: _____

Search Site

☒ STIC
☐ CM-1
☐ Pre-S

Type of Search

☐ N.A. Sequence
☒ A.A. Sequence
☐ Structure
☐ Bibliographic

Vendors

☐ IG
☐ STN
☐ Dialog
☐ APS
☐ Geninfo
☐ SDC
☐ DARC/Questel
☒ Other

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 8, 2004, 17:03:02 ; Search time 17.8804 Seconds
(without alignments)
1264.231 Million cell updates/sec

Title: US-08-994-468-6

Perfect score: 1242

Sequence: 1 MTVLAPAWSPTTVLLILLLL.....RPGEQVPPVSPQDLLLVEH 235

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 283366

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : PIR 78.*

1: Pirl.*

2: Pirl.*

3: Pirl.*

4: Pirl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1242	100.0	235	138440	flt3 ligand - huma
2	864.5	69.6	245	S43293	FLT3/FLK2 ligand (
3	834	67.1	178	139076	FLT3 ligand alterm
4	768.5	61.9	231	A49265	flt3/flk-2 ligand
5	606.5	48.8	220	S43291	FLT3/FLK2 ligand (
6	606.5	48.8	220	I58343	flt3 ligand isofor
7	93	7.5	1217	T22672	hypothetical prote
8	92	7.4	661	T19E12	74k alpha trans-in
9	89.5	7.2	474	T19E43	hypothetical prote
10	89	7.2	387	T48201	adhalin - golden h
11	89	7.2	793	S60735	splicing factor SF
12	88.5	7.1	238	A81990	hypothetical prote
13	88.5	7.1	1386	T00257	hypothetical prote
14	88	7.1	753	J00532	OP protein - Kenne
15	87.5	7.0	479	A32290	protein-tyrosine-p
16	87	7.0	910	A33137	tyrosine kinase re
17	86.5	7.0	590	A40437	glutamic acid-rich
18	86	6.9	299	T17832	hypothetical prote
19	86	6.9	485	A33647	sulfated surface g
20	86	6.9	746	T28004	hypothetical prote
21	85	6.8	289	A87646	Fc gamma (IgG) rec
22	85	6.8	366	A37374	tegument protein 6
23	84	6.8	263	T03162	gamma-glutamyl car
24	84	6.8	757	A32883	hypothetical prote
25	83.5	6.7	199	E75630	transactivator EBN
26	83.5	6.7	530	A45690	hypothetical prote
27	83	6.7	1509	T19486	hypothetical prote
28	82.5	6.6	418	T19800	hypothetical prote
29	82.5	6.6	426	I36948	Ig epsilon-chain -

ALIGNMENTS

RESULT 1

I38440
flt3 ligand - human
C:Species: Homo sapiens (man)
C:Date: 29-May-1998 #sequence revision 29-May-1998 #text_change 01-Dec-2000
C:Accession: I38440; I39075; S43292
R:Lyman, S.D.; James, L.; Johnson, L.; Braesel, K.; de Vries, P.; Escobar, S.S.; Downey, Blood 83, 2795-2801, 1994
A:Title: Cloning of the human homologue of the murine flt3 ligand: a growth factor for
A:Reference number: I38440; MUID:94235842; PMID:8180375
A:Accession: I38440
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-235 <RES>
A:Cross-references: EMBL:U03858; NID:G494978; PIDN:AAA19825.1; PID:G9494979
R:Lyman, S.D.; Stocking, K.; Davison, B.; Fletcher, P.; Johnson, L.; Escobar, S. Oncogene 11, 1165-1172, 1995
A:Title: Structural analysis of human and murine flt3 ligand genomic loci.
A:Reference number: I39075; MUID:96032581; PMID:7566977
A:Accession: I39075
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-235 <RES>
A:Cross-references: EMBL:U29874; NID:G1072036; PIDN:AAA90949.1; PID:G1072037
R:Hannum, C.; Culpepper, J.; Campbell, D.; McClanahan, T.; Zurawski, S.; Bazan, J.F.; Kfelt, A.; Muench, M.; Kelner, G.; Namikawa, R.; Rennick, D.; Roncarolo, M.G.; Zlotnik, Nature 368, 843-848, 1994
A:Title: Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoiet
A:Reference number: S43290; MUID:94195428; PMID:8145851
A:Accession: S43292
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-71, 'A', 73-235 <HAN>
A:Cross-references: GB:U04806; NID:9483844; PIDN:AAA17999.1; PID:9483845
A:Note: the authors translated the codon AGT for residue 25 as Met
C:Genetics:
A:Introns: 11/3; 48/3; 66/3; 114/3; 161/1; 220/3

Query Match 100.0%; Score 1242; DB 2; Length 235;
Best Local Similarity 100.0%; Pred. No. 5e-99; 0; Indels 0; Gaps 0;
Matches 235; Conservative 0; Mismatches 0;

Qy 1 MTVLAPAWSPTTVLLILLSSGLSQDCSFQHSPISSDFAVKIRELSDYLLQDYPTV 60
Db 1 MTVLAPAWSPTTVLLILLSSGLSQDCSFQHSPISSDFAVKIRELSDYLLQDYPTV 60

Qy 61 ASNLQDEELCGGLRWLVLAQRWWRKTVAGSKMQGLLVRVTEIHFTVKCAFQPPPSCL 120
Db 61 ASNLQDEELCGGLRWLVLAQRWWRKTVAGSKMQGLLVRVTEIHFTVKCAFQPPPSCL 120

Qy 121 RFVQTNISRLQTSLSQVLPKWTITRONFSRCLEIQCQDPSSTLPPWSPRPLETAPT 180

Db 121 RFVQTNISRLLOETSEQLVALKPWITRONFSCLELQCCPDSSTLPFPWSPRPLEATAPT 180
QY 181 APQPPLLLLLLPGVGLLLAAAWCLHWQTRRRTRPRGQVPPVPSODLLLVH 235
Db 181 APQPPLLLLLLPGVGLLLAAAWCLHWQTRRRTRPRGQVPPVPSODLLLVH 235
RESULT 2
S43293
FLT3/FLK2 ligand (clone S109) - human
C:Species: Homo sapiens (man)
C:Date: 20-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
C:Accession: S43293
R:Lyman, C.; Culpepper, J.; Campbell, D.; McClanahan, T.; Zurawski, S.; Bazan, J.F.; K
felt, A.; Muench, M.; Kelnner, G.; Namikawa, R.; Rennick, D.; Roncarolo, M.G.; Zlotnik, A
Nature 368, 643-648, 1994
A:Title: Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoietic
A:Reference number: S43290; MUID:94195428; PMID:8145851
A:Accession: S43293
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-245 <HAN>
A>Note: the authors translated the codon AGT for residue 25 as Met
Query Match 69.6%; Score 864.5; DB 2; Length 245;
Best Local Similarity 73.0%; Pred. No. 1.1e-66;
Matches 176; Conservative 7; Mismatches 27; Indels 31; Gaps 3;
QY 1 MTVLAPAWSPPTTYLLILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVT 60
Db 1 MTVLAPAWSPPTTYLLILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVT 60
QY 61 ASNLODEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFVTKCAFQPPPSCL 120
Db 61 ASNLODEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVALKPWITRONFSCLELQCCPDSSTLPFPWSPRPLEATAPT 180
Db 121 RFVQTNISRLLOETSEQLVALKPWITRONFSCLELQCCPDSSTLPFPWSPRPLEATAPT 180
QY 181 APQPPLLLLLLPGVGLLLAAAWCLHWQTRRRTRPRGQVPPVPSODLLLVH 235
Db 181 APQPPLLLLLLPGVGLLLAAAWCLHWQTRRRTRPRGQVPPVPSODLLLVH 235
RESULT 3
I39076
FLT3 ligand alternatively spliced isoform - human
C:Species: Homo sapiens (man)
C:Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C:Accession: I39076
R:Lyman, S.D.; Stocking, K.; Davison, B.; Fletcher, F.; Johnson, L.; Escobar, S.
Oncogene 11, 1165-1172, 1995
A:Title: Structural analysis of human and murine flt3 ligand genomic loci.
A:Reference number: I39075; MUID:96032581; PMID:7566977
A:Accession: I39076
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-178 <RES>
A:Cross-references: EMBL:U29874; NID:G1072036; PIDN:AAA90950.1; PID:G1072038
C:Genetics:
A:Introns: 11/3; 48/3; 66/3; 114/3; 161/1
Query Match 67.1%; Score 834; DB 2; Length 178;
Best Local Similarity 100.0%; Pred. No. 3.2e-64;
Matches 160; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTVLAPAWSPPTTYLLILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVT 60

Db 1 MTVLAPAWSPPTTYLLILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVT 60
QY 61 ASNLODEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFVTKCAFQPPPSCL 120
Db 61 ASNLODEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVALKPWITRONFSCLELQCCP 160
Db 121 RFVQTNISRLLOETSEQLVALKPWITRONFSCLELQCCP 160
RESULT 4
A49265
flt3/flk-2 ligand precursor - mouse
C:Species: Mus musculus (house mouse)
C:Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 08-Oct-1999
C:Accession: A49265; I49347; I49346; S43290
R:Lyman, S.D.; James, L.; Vanden Bos, T.; de Vries, P.; Brasel, K.; Gliniak, B.; Hollir
D.; Williams, D.E.; Beckmann, M.P.
Cell 75, 1157-1167, 1993
A:Title: Molecular cloning of a ligand for the flt3/flk-2 tyrosine kinase receptor: a f
A:Reference number: A49265; MUID:94084791; PMID:7505204
A:Accession: A49265
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-231 <LYM>
A:Cross-references: GB:I23636; NID:G439441; PIDN:AAA9436.1; PID:G439442
R:Lyman, S.D.; Stocking, K.; Davison, B.; Fletcher, F.; Johnson, L.; Escobar, S.
Oncogene 11, 1165-1172, 1995
A:Title: Structural analysis of human and murine flt3 ligand genomic loci.
A:Reference number: I39075; MUID:96032581; PMID:7566977
A:Accession: I49347
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-163, 'G', 165, 'HYAG' <RES>
A:Cross-references: EMBL:U29875; NID:G1072039; PIDN:AAA90952.1; PID:G1072041
A:Accession: I49346
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-197, 'L', 198-231 <RE2>
A:Cross-references: EMBL:U29875; NID:G1072039; PIDN:AAA90951.1; PID:G1072040
R:Hannum, C.; Culpepper, J.; Campbell, D.; McClanahan, T.; Zurawski, S.; Bazan, J.F.; K
felt, A.; Muench, M.; Kelnner, G.; Namikawa, R.; Rennick, D.; Roncarolo, M.G.; Zlotnik,
Nature 368, 643-648, 1994
A:Title: Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoiet
A:Reference number: S43290; MUID:94195428; PMID:8145851
A:Accession: S43290
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-197, 'L', 198-231 <HAN>
A:Experimental source: clone T110
A>Note: the sequence from Fig. 2c is inconsistent with that from Fig. 2a in having 4-Va
C:Genetics:
A:Introns: 11/3; 49/3; 67/3; 115/3; 164/1; 224/3
C:Keywords: transmembrane protein
Query Match 61.9%; Score 768.5; DB 2; Length 231;
Best Local Similarity 70.3%; Pred. No. 1.7e-58;
Matches 163; Conservative 17; Mismatches 43; Indels 9; Gaps 4;
QY 1 MTVLAPAWSPPTTYLLILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVT 59
Db 1 MTVLAPAWSPNSLLILLSSGLSGTQDCSFQHSPISSNFKVKFRELTDHLLKDYFVT 60
QY 60 VASNLODEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFVTKCAFQPPPSCL 119
Db 61 VAVNLODEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFVTKCAFQPPPSCL 120
QY 120 LRFVQTNISRLLOETSEQLVALKPWITRONFSCLELQCCPDSSTLPFPWSPRPLEAT 177
Db 121 LRFVQTNISRLLOETSEQLVALKPWITRONFSCLELQCCPDSSTLPFPWSPRPLEAT 180
QY 178 APTAQPP--ILLILLPVGILLAAWCLHWQTRRRTRPRGQVPPVPS 227

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OM protein - protein search, using sw model

Run on: April 8, 2004, 16:59:26 ; Search time 12.717 Seconds
(without alignments)
958.091 Million cell updates/sec

Title: US-08-994-468-6

Perfect score: 1242

Sequence: 1 MTVLAPAWSPTVLLLLLL.....RPGEQVPPVSPQDILLVH 235

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1242	100.0	235	1 FL3L HUMAN	P49771 homo sapien
2	768	61.8	232	1 FL3L MOUSE	P49772 mus musculus
3	92	7.4	661	1 AT12 VZVD	P09264 varicella-z
4	90.5	7.3	5120	1 PCLO CHICK	O9pu36 gallus gall
5	89.5	7.2	941	1 GBR2 HUMAN	O75899 homo sapien
6	89	7.2	387	1 SGCA MESAU	Q64255 mesocricetu
7	89	7.2	793	1 S3A1 HUMAN	Q15459 homo sapien
8	87.5	7.0	415	1 TNR3 MOUSE	P50284 mus musculus
9	87.5	7.0	479	1 MP1P DROME	P20483 drosophila
10	87	7.0	910	1 DDRI RAT	Q63474 rattus norv
11	87	7.0	911	1 DDRI MOUSE	Q03146 mus musculus
12	86.5	7.0	1394	1 CNG4 BOVIN	Q28181 bos taurus
13	86	6.9	485	1 SSGP VOLCA	P21937 volvox cart
14	85	6.8	282	1 ATFS HUMAN	Q9y2d1 homo sapien
15	85	6.8	366	1 FCGN RAT	P13599 rattus norv
16	84.5	6.8	3726	1 ABF1 MOUSE	Q61329 mus musculus
17	84	6.8	582	1 MNT HUMAN	Q99583 homo sapien
18	84	6.8	732	1 EAL5 HUMAN	Q9hcm4 homo sapien
19	84	6.8	1234	1 NPHN RAT	Q9r044 rattus norv
20	83.5	6.7	771	1 Z282 HUMAN	Q9udv7 homo sapien
21	83	6.7	758	1 VKGG HUMAN	P38435 homo sapien
22	83	6.7	866	1 BAL MOUSE	Q8cas9 mus musculus
23	82.5	6.6	334	1 BC12 HUMAN	Q9hb09 homo sapien
24	82.5	6.6	598	1 LTB2 HUMAN	Q8n423 h leukocyte
25	82	6.6	2167	1 SHK1 RAT	Q9wv48 rattus norv
26	81.5	6.6	488	1 NM11 HUMAN	P24347 homo sapien
27	81.5	6.6	591	1 MNT MOUSE	Q08789 mus musculus
28	81.5	6.6	2212	1 T230 HUMAN	Q93074 homo sapien
29	81	6.5	283	1 ATFS MOUSE	O70191 mus musculus
30	81	6.5	387	1 SGCA MOUSE	P82350 mus musculus
31	81	6.5	428	1 EPC HUMAN	P01854 homo sapien
32	81	6.5	1248	1 DIA1 HUMAN	O60610 homo sapien
33	80.5	6.5	1402	1 IF4G RABIT	P41110 oryctolagus

ALIGNMENTS

RESULT 1

ID	FL3L_HUMAN	STANDARD;	PRT;	235 AA.
AC	P49771;			
DT	01-OCT-1996 (Rel. 34, Created)			
DT	01-OCT-1996 (Rel. 34, Last sequence update)			
DT	15-MAR-2004 (Rel. 43, Last annotation update)			
DE	SL cytokine precursor (Fms-related tyrosine kinase 3 ligand) (Flt3 ligand) (Flt3L).			
GN	FLT3LG.			
OS	Homo sapiens (Human).			
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.			
OX	NCBI_TaxID=9606;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RX	MEDLINE=94195428; PubMed=8145851;			
RA	Hannum C., Culpepper J., Campbell D., McClanahan T., Zurawski S., Bazaan J.F., Kastelein R., Hudak S., Wagner J., Mattson J., Luh J., Duda G., Martina N., Peterson D., Menon S., Shanafelt A., Muench M., Keiner G., Namikawa R., Rennick D., Roncarolo M.G., Zlotnik A., Rosnet O., Dubreuil P., Birbaumer D., Lee F., haematopoietic stem cells and is encoded by variant RNAs."			
RL	Nature 368:643-648(1994).			
RN	[2]			
RP	SEQUENCE FROM N.A.			
RX	MEDLINE=94235842; PubMed=8180375;			
RA	Lyman S.D., James L., Johnson L., Brasel K., de Vries P., Escobar S.S., Downey H., Spiett R.K., Beckmann M.P., McKenna H.J.; "Cloning of the human homologue of the murine Flt3 ligand: a growth factor for early hematopoietic progenitor cells."			
RL	Blood 83:2795-2801(1994).			
RN	[3]			
RP	SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.			
RX	MEDLINE=96032581; PubMed=7566977;			
RA	Lyman S.D., Stocking K., Davison B., Fletcher F., Johnson L., Escobar S.;			
RT	"Structural analysis of human and murine flt3 ligand genomic loci."			
RL	Oncogene 11:1165-1172(1995).			
RN	[4]			
RP	X-RAY CRYSTALLOGRAPHY (2.2 ANGSTROMS).			
RX	MEDLINE=20343011; PubMed=10881197;			
RA	Savvides S.N., Boone I., Karplus F.A.;			
RT	"Flt3 ligand structure and unexpected commonalities of helical bundles and cysteine knots."			
RL	Nat. Struct. Biol. 7:486-491(2000).			
CC	-!- FUNCTION: Stimulates the proliferation of early hematopoietic cells. Synergizes well with a number of other colony stimulating factors and interleukins.			
CC	-!- SUBUNIT: Homodimer (isoform 2).			
CC	-!- SUBCELLULAR LOCATION: Type I membrane protein (isoform 1).			
CC	-!- Secreted (isoform 2).			
CC	-!- ALTERNATIVE PRODUCTS:			
CC	Event=Alternative splicing; Named isoforms=2;			
CC	Name=1; Synonyms=Membrane-bound;			

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CC      IsoId=P49771-1; Sequences=Displayed;
CC      Name=2; Synonyms=Soluble;
CC      IsoId=P49771-2; Sequences=VSP_004251, VSP_004252;
CC
CC      This SWISS-PROT entry is copyrighted. It is produced through a collaboration
CC      between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC      the European Bioinformatics Institute. There are no restrictions on its
CC      use by non-profit institutions as long as its content is in no way
CC      modified and this statement is not removed. Usage by and for commercial
CC      entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC      or send an email to license@isb-sib.ch).
CC
CC      EMBL; U04806; AAA17999.1; -
CC      EMBL; U03858; AAA19825.1; -
CC      EMBL; U29874; AAA30949.1; -
CC      EMBL; U29874; AAA30950.1; -
CC      PIR; I38440; I38440.
CC      PIR; I38076; I38076.
CC      FDB; IETZ; 09-JUN-00.
CC      Genew; HGNC:3766; FLT3LG.
CC      MIM; 600007; -
CC      GO; GO:0005625; C:soluble fraction; TAS.
CC      GO; GO:0005102; F:receptor binding; TAS.
CC      GO; GO:0003284; P:positive regulation of cell proliferation; TAS.
CC      GO; GO:0007165; P:signal transduction; TAS.
CC      InterPro; IPR004213; Flt3_lig.
CC      Pfam; PF02947; flt3_lig; 1.
CC      Cytokine; Glycoprotein; Transmembrane; Alternative splicing; Signal;
CC      3D-structure.
CC
CC      SIGNAL      1 26      POTENTIAL.
CC      CHAIN      27 235      SL CYTOKINE.
CC      DOMAIN      27 184      EXTRACELLULAR (POTENTIAL).
CC      TRANSMEM      185 205      POTENTIAL.
CC      DOMAIN      206 235      CYTOPLASMIC (POTENTIAL).
CC      DISULFID      30 111
CC      DISULFID      70 153
CC      DISULFID      119 158
CC      CARBOHYD      126 126
CC      CARBOHYD      149 149
CC      VARSPLIC      161 178
CC
CC      VARSPLIC      179 235
CC
CC      CONFLICT      72 72
CC      STRAND      31 31
CC      TURN      39 40
CC      HELIX      41 49
CC      TURN      50 51
CC      STRAND      53 53
CC      TURN      54 55
CC      STRAND      57 61
CC      STRAND      64 64
CC      TURN      68 70
CC      HELIX      71 87
CC      TURN      88 89
CC      STRAND      90 90
CC      HELIX      92 104
CC      TURN      106 110
CC      TURN      118 119
CC      STRAND      122 126
CC      HELIX      127 141
CC      TURN      142 147
CC      STRAND      149 149
CC      HELIX      151 153
CC      STRAND      158 158
CC      SEQUENCE      235 AA; 73B95BF693B4CECF CRC64;
CC
CC      Query Match      100.0%; Score 1242; DB 1; Length 235;
CC      Best Local Similarity      100.0%; Pred. No. 4e-96;
CC      Matches 235; Conservative      0; Mismatches      0; Indels      0; Gaps      0;
CC
CC      1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV 60

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Db      1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV 60
Qy      61 ASNLQDEELGGWRLVLAQRWMLKTVAGSKVQGLLRVNTIHFVTKCAFQPPPSCL 120
Db      61 ASNLQDEELGGWRLVLAQRWMLKTVAGSKVQGLLRVNTIHFVTKCAFQPPPSCL 120
Qy      121 RFVQTNISRLQTSBQLVAKPWITRONFSRCLELQCPDSSSTLPPSPRPLEATAPT 180
Db      121 RFVQTNISRLQTSBQLVAKPWITRONFSRCLELQCPDSSSTLPPSPRPLEATAPT 180
Qy      181 APOPELLLLLLLVGLLLLAAACLHWQTRRRTPRSGEQVPPVPSQDLLLLLVEH 235
Db      181 APOPELLLLLLLVGLLLLAAACLHWQTRRRTPRSGEQVPPVPSQDLLLLLVEH 235

RESULT 2
FL3L MOUSE
ID FL3L MOUSE STANDARD; PRT; 232 AA.
AC P49772; 864085;
DT 01-OCT-1996 (Rel. 34, Created).
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE SL cytokine precursor (Fms-related tyrosine kinase 3 ligand) (Flt3
DE ligand) (Flt3L).
GN FLT3LG OR FLT3L.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
CX NCBI_TaxID=10090;
[1]
RP SEQUENCE FROM N.A.
RX MEDLINE=94195428; PubMed=8145851;
RA Hannum C., Culppepper J., Campbell D., McClanahan T., Zurawski S.,
RA Bazan J.F., Kastelein R., Hudak S., Wagner J., Mattson J., Luh J.,
RA Duda G., Martina N., Peterson D., Menon S., Shanafelt A.,
RA Muench M., Kelnar G., Namikawa R., Rennick D., Roncarolo M.G.,
RA Zlotnik A., Rosnet O., Dubreuil P., Birnbaum D., Lee F.;
RT "Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of
RT haematopoietic stem cells and is encoded by variant RNAs.";
RL Nature 368:643-648(1994).
[2]
RP SEQUENCE FROM N.A.
RC STRAIN=SJL/J;
RX MEDLINE=94084791; PubMed=7505204;
RA Lyman S.D., James L., Vanden Bos T., Devries P., Brasel K.,
RA Gliniak B., Hollingsworth L.T., Picha K.S., McKenna H.J.,
RA Spielt R.R., Fletcher F.A., Maraskovsky E., Farrah T.,
RA Foxworth D., Williams D.E., Beckmann M.P.;
RT "Molecular cloning of a ligand for the flt3/flk-2 tyrosine kinase
RT receptor: a proliferative factor for primitive hematopoietic cells.";
RL Cell 75:1157-1167(1993).
[3]
RP SEQUENCE FROM N.A. AND ALTERNATIVE SPLICING.
RX MEDLINE=96032581; PubMed=7566977;
RA Lyman S.D., Stocking K., Davison B., Fletcher F., Johnson L.,
RA Escobar S.;
RT "Structural analysis of human and murine flt3 ligand genomic loci.";
RL Oncogene 11:1165-1172(1995).
[4]
RP SEQUENCE FROM N.A. AND ALTERNATIVE SPLICING.
RX MEDLINE=95124710; PubMed=7824267;
RA Lyman S.D., James L., Escobar S., Downey H., de Vries P.,
RA Brasel K., Stocking K., Beckmann M.P., Copeiland N.G.,
RA Cleveland L.S.;
RT "Identification of soluble and membrane-bound isoforms of the murine
RT flt3 ligand generated by alternative splicing of mRNAs.";
RL Oncogene 10:149-157(1995).
[5]
RP SEQUENCE FROM N.A.
RA McClanahan T., Culppepper J., Campbell D., Wagner J.,
RA Franz-Bacon K., Mattson J., Tsai S., Luh J., Guimares M.J.,
RA Mattei M.-G., Rosnet O., Birnbaum D., Hannum C.;

```


RESULT 4
PCLO_CHICK
ID PCLO_CHICK STANDARD; PRT; 5120 AA.
AC Q9PU36;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DE Piccolo protein (Aczonin) (Fragment).
GN PCLO OR ACZ.
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
ON NCBI_TaxID=9031;
RX MEDLINE=99439764; PubMed=10508862;
RA Wang X., Kibschull M., Laue M.M., Lichte B., Petrasch-Parwez E.,
RA Killmann M.W.;
RT "Aczonin, a 550-kd putative scaffolding protein of presynaptic active
RT zones, shares homology regions with rim and bassoon and binds
RT profilin.";
RL J. Cell Biol. 147:151-162(1999).
CC -!- FUNCTION: May act as a scaffolding protein involved in the
CC organization of synaptic active zones and in synaptic vesicle
CC trafficking (By similarity).
CC -!- SUBUNIT: Interacts with Rabac1/Pral and profilin (By similarity).
CC -!- SUBCELLULAR LOCATION: Concentrated at the presynaptic side of
CC synaptic junctions (By similarity).
CC -!- DOMAIN: C2 domain 1 is involved in binding calcium and
CC phospholipids. Calcium binds with low affinity but with high
CC specificity and induces a large conformational change.
CC -!- SIMILARITY: Contains 2 C2 domains.
CC -!- SIMILARITY: Contains 1 PDZ/DHR domain.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation
CC the European Bioinformatics Institute. There are no restrictions on its
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CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; Y19187; CAB60725.1; --
CC HSPSP; P04410; 1A25.
CC GO; GO:0045202; C:synaptic junction; ISS.
CC GO; GO:0005509; F:calcium ion binding; ISS.
CC GO; GO:0005544; F:calcium-dependent phospholipid binding; ISS.
CC GO; GO:0005522; F:profilin binding; ISS.
CC GO; GO:0007010; P:cytoskeleton organization and biogenesis; ISS.
CC GO; GO:0016080; P:synaptic vesicle targeting; ISS.
CC InterPro; IPR000008; C2.
CC InterPro; IPR001478; PDZ.
CC InterPro; IPR001565; Synaptotagmin.
CC InterPro; IPR008899; Znf_piccolo.
CC Pfam; PF00168; C2; 2.
CC Pfam; PF00595; PDZ; 1.
CC Pfam; PF05715; Zf_piccolo; 2.
CC PRINTS; PR00399; SYNAPTOTAGMIN.
CC SMART; SM00239; C2; 2.
CC SMART; SM00228; PDZ; 1.
CC PROSITE; PS00499; C2_DOMAIN_1; 1.
CC PROSITE; PS00004; C2_DOMAIN_2; 2.
CC PROSITE; PS0106; PDZ; 1.
CC Calcium/phospholipid-binding; Zinc; Metal-binding; Zinc-finger;
KW Repeat.
FT NON_TER 1 1
FT DOMAIN 258 357 10 X 10 AA TANDEM APPROXIMATE REPEATS OF
FT P-A-K-P-Q-P-Q-P-X.
FT ZN_FING 368 392 C4-TYPE (POTENTIAL).
FT ZN_FING 836 859 C4-TYPE (POTENTIAL).
FT

FT DOMAIN 2324 2343 POLY-PRO.
FT DOMAIN 4414 4493 PDZ.
FT DOMAIN 4627 4726 C2 DOMAIN 1.
FT DOMAIN 5003 5094 C2 DOMAIN 2.
SQ SEQUENCE 5120 AA; 560751 MW; A658D9891B65B412 CRC64;
Query Match 7.3%; Score 90.5; DB 1; Length 5120;
Best Local Similarity 24.3%; Pred.No.48;
Matches 45; Conservative 19; Mismatches 72; Indels 49; Gaps 7;
Qy 90 AGSKMOGLLERNVTEIHF-----VTKAFQPPPSCLRFVQTN----- 126
Db 2224 AARKKSTVETGIIKIHEDSHKELSLDMTRINLTGATSEQPLCLCVASVSKPEASETPA 2283
Qy 127 --ISRLLQETSE-QLVALKRWITRONF-----SCLQLQCPDSSSTLPPWSPRELEATAP 179
Db 2284 VPTFRVVKSTSTVMPSSPALTSKVFSLFRSSLSLSPAQSPSPSPPPPPPPPLPPP 2343
Qy 180 TAQPQ-----PLLLLLLPVGLLLAAWCLH-WQTRRRRRPRGEQV 221
Db 2344 ILKPAIYPKKKSQIQAPMATAFTAVPLVTSVATLSSAAVLKNHVVVTKYVTPP-PPV 2402
Qy 222 PPVPS 226
Db 2403 PPKPS 2407
RESULT 5
GBR2_HUMAN
ID GBR2_HUMAN STANDARD; PRT; 941 AA.
AC OY5899; OY5974; OY5975; Q8WX04; Q9P1R2; Q9UNR1; Q9UNS9;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Gamma-aminobutyric acid type B receptor, subunit 2 precursor (GABA-B
DE receptor 2) (GABA-B-R2) (Gb2) (GABABR2) (G protein-coupled receptor
DE 51) (GPR 51) (HG20).
GN GPR51 OR GABBR2.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Primates; Catarrhini; Homnidae; Homo.
CX NCBI_TaxID=9606;
RN [1] (GPR 51) (HG20).
RP SEQUENCE FROM N.A.
RX MEDLINE=99087321; PubMed=9872316;
RA White J.H., Wise A., Main M.J., Green A., Fraser N.J., Disney G.H.,
RA Barnes A.A., Emson P., Foord S.M., Marshall F.H.;
RT "Heterodimerization is required for the formation of a functional
RL GABA(B) receptor.";
RN Nature 396:679-682(1998).
RP SEQUENCE FROM N.A.
RX MEDLINE=20193514; PubMed=10727622;
RA Clark J.A., Mezey E., Lam A.S., Bonner T.I.;
RT "Distribution of the GABA(B) receptor subunit gb2 in rat CNS.";
RL Brain Res. 860:41-52(2000).
RN [3]
RP SEQUENCE FROM N.A.
RX Liu M., Parker R., McCrear K., Watson J., Baker E., Sutherland G.,
RA Herzog H.;
RT "Cloning and characterization of a novel human GABA-B receptor subtype
RT with high affinity for GABA and low affinity for baclofen.";
RL Submitted (NOV-1998) to the EMBL/GenBank/DBJ databases.
RN [4]
RP SEQUENCE FROM N.A.
RX TISSUE=Hippocampus;
RA Borowsky B., Laz T., Gerald C.;
RL Submitted (JAN-1999) to the EMBL/GenBank/DBJ databases.
RN [5]
RP SEQUENCE FROM N.A.
RX TISSUE=Fetal brain;
RN

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OM protein - protein search, using sw model

Run on: April 8, 2004, 17:02:32 ; Search time 45.9783 Seconds
(without alignments)
1612.649 Million cell updates/sec

Title: US-08-994-468-6
Perfect score: 1242
Sequence: 1 MTVLAPAWSPTTYLLLLLLL.....RGEQVPVPSPQDLLLVEH 235

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters: 1017041

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SPTREMBL_25.*

- 1: sp_archaea.*
- 2: sp_bacteria.*
- 3: sp_fungi.*
- 4: sp_human.*
- 5: sp_invertebrate.*
- 6: sp_mammal.*
- 7: sp_mhc.*
- 8: sp_organelle.*
- 9: sp_phase.*
- 10: sp_plant.*
- 11: sp_rodent.*
- 12: sp_virus.*
- 13: sp_vertebrate.*
- 14: sp_unclassified.*
- 15: sp_rvirus.*
- 16: sp_bacteriaph.*
- 17: sp_archaeap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	1145.5	92.2	236	Q865Z3	Q865Z3 papio cynoc
2	895.5	72.1	294	Q9MZV0	Q9MZV0 canis faml
3	894.5	72.0	291	Q9MZU9	Q9MZU9 felis silve
4	840	67.6	292	Q9GKE0	Q9GKE0 bos taurus
5	835	67.2	292	Q8MNM1	Q8MNM1 bos taurus
6	745	60.1	274	Q9GKD9	Q9GKD9 bos taurus
7	602.5	48.5	172	Q61104	Q61104 mus musculu
8	578	46.5	169	Q8VCH4	Q8VCH4 mus musculu
9	276	22.2	54	Q7Z6N5	Q7Z6N5 homo sapien
10	112.5	9.1	579	Q91LGG8	Q91LGG8 oryza sativ
11	110	8.9	219	Q8DKL7	Q8DKL7 synchococc
12	105	8.5	208	Q8L418	Q8L418 oryza sativ
13	100.5	8.1	1809	Q8VIM6	Q8VIM6 mus musculu
14	97.5	7.9	669	Q8GYA4	Q8GYA4 arabidopsis
15	96	7.7	474	Q7WGA9	Q7WGA9 bordetella
16	96	7.7	474	Q7VU97	Q7VU97 bordetella

17	95.5	7.7	439	4	Q8N775	Q8N775 homo sapien
18	95.5	7.7	658	10	Q8H785	Q8H785 arabidopsis
19	95.5	7.7	1240	12	Q9DWH8	Q9DWH8 rat cytomag
20	93.5	7.5	658	10	Q9G5T0	Q9G5T0 arabidopsis
21	93	7.5	1217	5	Q17889	Q17889 caenorhabdi
22	92.5	7.4	387	11	Q8VD70	Q8VD70 mus musculu
23	92.5	7.4	1400	5	Q9VDD2	Q9VDD2 drosophila
24	92	7.4	251	4	Q9HAD2	Q9HAD2 homo sapien
25	91.5	7.4	287	16	Q8DHH3	Q8DHH3 synchococc
26	91.5	7.4	308	11	Q8BP15	Q8BP15 mus musculu
27	91.5	7.4	674	11	Q8K4C2	Q8K4C2 mus musculu
28	89.5	7.2	474	5	Q17610	Q17610 caenorhabdi
29	88.5	7.1	238	16	Q8YWX3	Q8YWX3 anabaena sp
30	88.5	7.1	270	4	Q9UMT1	Q9UMT1 homo sapien
31	88.5	7.1	356	2	Q8KR32	Q8KR32 yersinia ps
32	88.5	7.1	404	10	Q9AMJ4	Q9AMJ4 oryza sativ
33	88.5	7.1	579	4	Q8N158	Q8N158 homo sapien
34	88.5	7.1	1267	10	Q943D5	Q943D5 oryza sativ
35	88.5	7.1	1386	4	Q75064	Q75064 homo sapien
36	88	7.1	250	6	Q9GKE2	Q9GKE2 sus scrofa
37	88	7.1	753	12	Q56971	Q56971 kennedya ye
38	88	7.1	791	11	Q8K4Z5	Q8K4Z5 mus musculu
39	88	7.1	791	11	Q8C175	Q8C175 mus musculu
40	88	7.1	791	11	Q8C128	Q8C128 mus musculu
41	88	7.1	791	11	Q8COM7	Q8COM7 mus musculu
42	88	7.1	815	10	Q7XPC0	Q7XPC0 oryza sativ
43	87.5	7.0	470	10	Q9LUI1	Q9LUI1 arabidopsis
44	87.5	7.0	564	10	Q8L729	Q8L729 spinacia ol
45	87.5	7.0	946	10	Q22015	Q22015 cylindrothe

ALIGNMENTS

RESULT 1

Q865Z3 PRELIMINARY; PRT; 236 AA.
AC Q865Z3;
DT 01-JUN-2003 (Tremblrel. 24, Created)
DT 01-JUN-2003 (Tremblrel. 24, Last sequence update)
DT 01-OCT-2003 (Tremblrel. 25, Last annotation update)
DE FLT3 ligand.
OS Papio cynocephalus x Papio anubis.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheidae;
OC Cercopitheciae; Papio.
OX NCBI_TaxID=208510;
RN [1]
RP SEQUENCE FROM N.A.
RA Kalina T., Storek J.;
RT "T-cell reconstitution after autologous CD34 cell transplantation in monkeys."
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY226585; AA072538.1; -
DR GO; GO:0016030; C:membrane; IEA.
DR GO; GO:0005125; F:cytokine activity; IEA.
DR InterPro; IPR004213; Flt3 lig.
DR Pfam; PF02947; flt3 lig. I.
SQ SEQUENCE 236 AA; 26591 MW; 740F33A6A6DC2163 CRC64;

Query Match 92.2%; Score 1145.5; DB 6; Length 236;
Best Local Similarity 94.9%; Pred. No. 7.9e-104;
Matches 224; Conservative 0; Mismatches 11; Indels 1; Gaps 1;
QY 1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPTSSDFAVKIRELSYLLQDPVTV 60
Db 1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPTSSDFAVKIRELSYLLQDPVTV 60
QY 61 ASNLQDEELCGGLNRLVLAQRWMLKTVAGSKVQGLLRLVNTFHFVKCAFQPPSCL 120
Db 61 PSNLQDEELCGGLNRLVLAQRWMLKTVAGSKVQGLLRLVNTFHFVKCAFQPPSCL 120
QY 121 RFVQTNISRLIQETSEQLVALKPNITQNFSCRLELQCCQPSSTLPPPWSPRPLEATAPT 180


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Db 121 REVQTNISLLQETSEQLVAKPWITRONFSCLQCPDSSSTLPPRSFGALEATAIT 180
QY 181 APQPP-LLLLLLPVGLLLAAACLWQRTTTRRRPRGEGVPPVPSQDILLVYEH 235
Db 181 AFQRPULLLLLLLPVGLLLATAWCLWQRTTTRRRPRGEGVPPVPSQDILLVYEH 236

RESULT 2
Q9MZV0 PRELIMINARY; PRT; 294 AA.
AC Q9MZV0;
DT 01-OCT-2000 (Tremblrel. 15, Created)
DT 01-OCT-2000 (Tremblrel. 15, Last sequence update)
DT 01-JUN-2003 (Tremblrel. 24, Last annotation update)
DE Flt3 ligand.
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_TaxID=9615;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20358731; PubMed=10902925;
RA Yang S., Sim G.K.;
RT "Molecular cloning of canine and feline flt3 ligand reveals high
RT degree of similarity to the human and mouse homologue but uniquely
RT long cytoplasmic domain."
RL DNA Seq. 11:163-166(2000).
DR EMBL; AF155148; AAF87088.1; -.
DR HSSP; P49771; IETE.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005125; F:cytokine activity; IEA.
DR InterPro; IPR004213; Flt3 lig.
DR Pfam; PF02947; flt3 lig; I.
SQ SEQUENCE 294 AA; 32394 MW; 6859917AJB74ABCD CRC64;

Query Match 72.1%; Score 895.5; DB 6; Length 294;
Best Local Similarity 77.1%; Pred. No. 2.8e-79;
Matches 182; Conservative 12; Mismatches 35; Indels 7; Gaps 3;

QY 1 MVLAPAWSPTTYLLLLSSGLSGTDCSFQSPISDFAVKIRELSYLLQDYPVT 60
Db 1 MVLAPAWSPTASLLLLSSPLRGTPDCFSFSPISSTFAVTKIRKLSYLLQDYPVT 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMOGLLERYNTEIHFVTKCAFQPPPSCL 120
Db 61 ASNLQDEELCGAFWRLVLAQRWMLKTVAGSQMQLLEAVNTEIHFVTFCAFPPLPSC 120
QY 121 REVQTNISLLQETSEQLVAKPWITRONFSCLQCPDSSSTLPPRSFGALEATAIT 180
Db 121 REVQTNISHLQDTSQQAALKPWITRRNFSGCLEQCPDSSSTLPPRSFGALEATAIT 180
QY 181 APQPP-LLLLLLPVGLLLAAACLWQRTTTRRRPRGEGVPPVPS- - - - - PQD 229
Db 181 AFQAPRLLLLLPVALLMSTAWCLWRRRRRRSPYGGQRTLRPSRSHLPED 236

RESULT 3
Q9MZU9 PRELIMINARY; PRT; 291 AA.
AC Q9MZU9;
DT 01-OCT-2000 (Tremblrel. 15, Created)
DT 01-OCT-2000 (Tremblrel. 15, Last sequence update)
DT 01-JUN-2003 (Tremblrel. 24, Last annotation update)
DE Flt3 ligand.
OS Felis silvestris catus (Cat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX NCBI_TaxID=9685;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20358731; PubMed=10902925;
RA Yang S., Sim G.K.;

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RT "Molecular cloning of canine and feline flt3 ligand reveals high
RT degree of similarity to the human and mouse homologue but uniquely
RT long cytoplasmic domain."
RL DNA Seq. 11:163-166(2000).
DR EMBL; AF155149; AAF87089.1; -.
DR HSSP; P49771; IETE.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005125; F:cytokine activity; IEA.
DR InterPro; IPR004213; Flt3 lig.
DR Pfam; PF02947; flt3 lig; I.
SQ SEQUENCE 291 AA; 32459 MW; 8F85A10A5EA0DCC6 CRC64;

Query Match 72.0%; Score 894.5; DB 6; Length 291;
Best Local Similarity 80.5%; Pred. No. 3.5e-79;
Matches 178; Conservative 9; Mismatches 33; Indels 1; Gaps 1;

QY 1 MVLAPAWSPTTYLLLLSSGLSGTDCSFQSPISDFAVKIRELSYLLQDYPVT 60
Db 1 MVLAPAWSPTTSLLLSSPLRGSPDCFSFSPISSTFKVTKIRKLSYLLQDYPVT 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMOGLLERYNTEIHFVTKCAFQPPPSCL 120
Db 61 ASNLQDEELCGPFWHLVLAQRWMLKTVAGSQMQLLEAVNTEIHFVTLCAFPPLPSC 120
QY 121 RFQVTNISRLLQETSEQLVAKPWITRONFSCLQCPDSSSTLPPRSFGALEATAIT 180
Db 121 RFQVTNISHLQDTSQQAALKPWITRRNFSGCLEQCPDSSSTLPPRSFGALEATAIT 180
QY 181 APQPP-LLLLLLPVGLLLAAACLWQRTTTRRRPRGEG 220
Db 181 APOAPRLLLLLPVALLMSTAWCLWRRRRRRWRTFPYPREQ 221

RESULT 4
Q9GKE0 PRELIMINARY; PRT; 292 AA.
AC Q9GKE0;
DT 01-MAR-2001 (Tremblrel. 16, Created)
DT 01-MAR-2001 (Tremblrel. 16, Last sequence update)
DT 01-JUN-2003 (Tremblrel. 24, Last annotation update)
DE Flt3 ligand isoform-1.
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20570936; PubMed=11120823;
RA Wang W., Brown W.C., Palmer G.H.;
RT "Identification of fetal liver tyrosine kinase 3 (Flt3) ligand domain
RT required for receptor binding and function using naturally occurring
RT ligand isoforms."
RL J. Immunol. 165:6966-6974(2000).
DR EMBL; AF282985; AAF99322.1; -.
DR HSSP; P49771; IETE.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005125; F:cytokine activity; IEA.
DR InterPro; IPR004213; Flt3 lig.
DR Pfam; PF02947; flt3 lig; I.
SQ SEQUENCE 292 AA; 32390 MW; D6B9ED79221202D CRC64;

Query Match 67.6%; Score 840; DB 6; Length 292;
Best Local Similarity 76.3%; Pred. No. 7.5e-74;
Matches 171; Conservative 12; Mismatches 37; Indels 4; Gaps 2;

QY 1 MVLAPAWSPTTYLLLLSSGLSGTDCSFQSPISDFAVKIRELSYLLQDYPVT 59
Db 1 MVLAPAWSPTTSLLLSSPLRGSPDCFSFSPISSTFAIKIGKLSYLLQDYPVT 60
QY 60 VASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMOGLLERYNTEIHFVTKCAFQPPPSCL 119
Db 61 VASNLQDLDKCGAFWRLVLAQRWMLKTVAGSEKLLDYNTTEIHFVTSYCAFPPLPSC 120

```

Result No.	Query		DB	ID	Description
	Score	Match length			
1	1242	100.0	235	2	Aar67541 Human flt
2	1242	100.0	235	2	Aaw67769 Human flt
3	1242	100.0	235	3	Aay69719 Full leng
4	1242	100.0	235	4	Aab20192 Human flt
5	1242	100.0	235	5	ABB08159 Human flt
6	1242	100.0	235	5	ABG31626 Human flt
7	1242	100.0	235	5	AAQ19091 C neoform
8	1242	100.0	235	6	Aag79949 Secretd
9	1242	100.0	235	6	ABG74239 Human flt
10	1242	100.0	235	7	Add22874 Human flt
11	1242	100.0	235	7	ADD80915 Amino aci
12	1242	100.0	235	7	Adc48117 Human flt
13	1242	100.0	235	7	Adse080752 Microsate
14	1237	99.6	235	6	Aag79950 Secretd
15	1236	99.5	235	2	Aar66175 Human s86
16	1236	99.5	235	4	Aab20194 Human flt
17	1124	90.5	212	3	Aay69721 Human flt
18	1124	89.7	209	2	Aaw69007 Human flt
19	1114	89.7	209	3	Aay69720 Mature wi
20	1110	89.4	209	3	Aay69729 Human flt
21	1110	89.4	209	3	Aay69727 Human flt
22	1110	89.4	209	3	Aay69723 Human flt
23	1110	89.4	209	3	Aay69726 Human flt
24	1108	89.2	209	3	Aay69722 Human flt
25	1108	89.2	209	3	Aay69724 Human flt

PT and various cancers.
 PS Disclosure; Page 29-30; 33pp; English.
 XX
 CC A human T-cell lambda-gt10 random primed cDNA library was screened with a
 CC fragment corresponding to the extracellular domain of mouse flt3 ligand
 CC (flt3-L) (nt 103-516 of AAQ79076) to isolate human flt3-L cDNA. flt3-L
 CC stimulates progenitor and stem cells, and can be used e.g. in gene
 CC therapy protocols. (Updated on 25-MAR-2003 to correct PN field.)
 XX
 SQ Sequence 235 AA;
 Query Match 100.0%; Score 1242; DB 2; Length 235;
 Best Local Similarity 100.0%; Pred. No. 5.8e-109;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MTVLAPAWSPPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
 DB 1 MTVLAPAWSPPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
 QY 61 ASNLQDEBELCGGLMRLVLAQRWMLKTVAGSKMGLLERVNTIHFVTKCAFQPPPSCL 120
 DB 61 ASNLQDEBELCGGLMRLVLAQRWMLKTVAGSKMGLLERVNTIHFVTKCAFQPPPSCL 120
 QY 121 RFVQTNISRLQETSEQLVAKPWITRONFRCLELQCPDSSTLPPWSPRPLEATPT 180
 DB 121 RFVQTNISRLQETSEQLVAKPWITRONFRCLELQCPDSSTLPPWSPRPLEATPT 180
 QY 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
 DB 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
 RESULT 2
 AA67769
 ID AA67769 standard; protein; 235 AA.
 AC AA67769;
 DT 25-MAR-1999 (first entry)
 XX
 DE Human flt3-L ligand.
 XX
 KW Antigen-specific peripheral immune tolerance; flt3-L ligand; flt3-L;
 KW immunogenic; autoimmune disease; organ transplantation; food allergy;
 KW tissue transplantation.
 XX
 OS Homo sapiens.
 XX
 PN W09857655-A1.
 XX
 PD 23-DEC-1998.
 XX
 PF 12-JUN-1998; 98WO-US012085.
 XX
 PR 17-JUN-1997; 97US-00877421.
 XX
 PA (IMMV) IMMUNEX CORP.
 XX
 PI Abbott NM, Mowat AM, Viney JL;
 XX
 DR WPI; 1999-070422/06.
 DR N-PSDB; AA681506.
 XX
 XX Methods for initiating or enhancing antigen specific immune tolerance -
 PT by using murine or human flt3 ligand.
 PT
 PS Claim 1; Page 14-15; 25pp; English.
 XX
 CC A method has been developed of initiating or enhancing: (i) an antigen-
 CC specific immune tolerance; or (ii) immunotolerance of a therapeutic
 CC immunogenic molecule by addition of a polypeptide, before, after or with
 CC the mucosal administration of an immunotolerising amount of the antigen

CC or therapeutic molecule, respectively. The polypeptide is capable of
 CC binding the flt3 receptor and is: a) amino acids 28-x of murine flt3
 CC ligand (flt3-L), where x is an amino acid between 163-231; b) amino acids
 CC 28-y of human flt3-L, where y is an amino acid between 160-235; and c) a
 CC polypeptide that has at least 90% identity to the polypeptides of either
 CC (a) or (b). The method ameliorates the effects of autoimmune diseases,
 CC food allergies or organ or tissue rejection following transplantation.
 CC Administration of flt3-L allows lower doses of antigens to be used in
 CC vivo for mucosally administered antigens. The present sequence represents
 CC human flt3-L
 XX
 SQ Sequence 235 AA;
 Query Match 100.0%; Score 1242; DB 2; Length 235;
 Best Local Similarity 100.0%; Pred. No. 5.8e-109;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MTVLAPAWSPPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
 DB 1 MTVLAPAWSPPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
 QY 61 ASNLQDEBELCGGLMRLVLAQRWMLKTVAGSKMGLLERVNTIHFVTKCAFQPPPSCL 120
 DB 61 ASNLQDEBELCGGLMRLVLAQRWMLKTVAGSKMGLLERVNTIHFVTKCAFQPPPSCL 120
 QY 121 RFVQTNISRLQETSEQLVAKPWITRONFRCLELQCPDSSTLPPWSPRPLEATPT 180
 DB 121 RFVQTNISRLQETSEQLVAKPWITRONFRCLELQCPDSSTLPPWSPRPLEATPT 180
 QY 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
 DB 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
 RESULT 3
 AA69719
 ID AA69719 standard; protein; 235 AA.
 AC AA69719;
 DT 05-JUL-2000 (first entry)
 XX
 DE Full length wild type human flt-3 protein.
 XX
 KW Immunomodulator; immunosuppressive; cytostatic; antianemic; anti-HIV;
 KW neuroprotective; antiallergic; flt3 ligand; flt3-L; wild type; allergy;
 KW cell surface tyrosine kinase receptor; hematopoietic progenitor cell;
 KW cellular expansion; cellular differentiation; natural killer cell;
 KW cancer; dendritic cell; immune response; autoimmunity; immunosuppression;
 KW myelodysplasia; aplastic anemia; HIV infection; lymphoma; neuroblastoma;
 KW multiple myeloma; leukemia.
 XX
 OS Homo sapiens.
 XX
 PN W0200001823-A2.
 XX
 PD 13-JAN-2000.
 XX
 PF 25-JUN-1999; 99WO-US014296.
 XX
 PR 02-JUL-1998; 98US-00109100.
 XX
 PA (IMMV) IMMUNEX CORP.
 XX
 PI Graddis TJ, McGrew JT;
 XX
 DR WPI; 2000-182115/16.
 DR N-PSDB; AAZ59064.
 XX
 XX Mutant soluble flt3 ligand polypeptide used in cellular expansion, immune
 PT response stimulation or treatment of pathological conditions contains
 PT amino acid substitutions at positions 8, 84, 118 or 122.

PS Claim 1; Page 72-73; 90pp; English.

XX The invention relates to novel soluble flt3 ligand (flt3-L) polypeptides
 CC which exhibits increased or decreased biological activity relative to the
 CC full length wild type (this sequence) or mature (AAY69720) flt3-L
 CC polypeptides. The flt3-L protein binds cell surface tyrosine kinase
 CC receptors and regulate growth and differentiation of hematopoietic
 CC progenitor cells. The flt3-L protein can be used to induce cellular
 CC expansion (especially in vivo) or differentiation, e.g. in hematopoietic,
 CC natural killer (NK) or dendritic cells, especially in the presence of
 CC growth factors such as interleukins, colony stimulating factors or
 CC protein kinases. The protein can also modulate, augment or enhance a
 CC patient's immune response and can be used to treat an immune disorder
 CC (e.g. allergy, autoimmunity or immunosuppression). The protein may be
 CC used to treat a pathological condition e.g. myelodysplasia, aplastic
 CC anemia, HIV infection, breast, small cell lung, testicular or ovarian
 CC cancer, lymphoma, multiple myeloma, neuroblastoma or acute leukemia
 XX

SQ Sequence 235 AA;

Query Match 100.0%; Score 1242; DB 3; Length 235;
 Best Local Similarity 100.0%; Pred. No. 5.8e-109;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYLLLLSSLSGLSGTDCSPHSPISDFAVKIRELSYLLQDPYTV 60
 DB 1 MTVLAPAWSPTTYLLLLSSLSGLSGTDCSPHSPISDFAVKIRELSYLLQDPYTV 60

QY 61 ASNLQDEELCGGLWRLVLAQRMWRLKTVAGSKMQLLERNVTEHFVTKCAFQPPPSCL 120
 DB 61 ASNLQDEELCGGLWRLVLAQRMWRLKTVAGSKMQLLERNVTEHFVTKCAFQPPPSCL 120

QY 121 RFVQTNISRLQSTSEQLVALKPWITRONFSRCLELQCPDSTLPPPSRPLEATAPT 180
 DB 121 RFVQTNISRLQSTSEQLVALKPWITRONFSRCLELQCPDSTLPPPSRPLEATAPT 180

QY 181 APQPPLLLLLPVGLLLAAACWLRWTRRRTPRGGEQVPPVPSQDILLVEH 235
 DB 181 APQPPLLLLLPVGLLLAAACWLRWTRRRTPRGGEQVPPVPSQDILLVEH 235

RESULT 4
 AAS20192
 ID AAB20192 standard; protein; 235 AA.
 AC AAB20192;
 XX 14-MAY-2001 (first entry)
 XX Human Flt-3 ligand.
 DE Flt-3 ligand; Fms-like tyrosine kinase; human; vaccine; immunotherapy;
 KW therapy; tumour; cancer; melanoma; glioma; lymphoma; autoimmune disease;
 KW infection; gene therapy.
 XX Homo sapiens.

Key Location/Qualifiers
 FT Peptide 1..26
 FT Protein /label= Signal_peptide
 FT Protein 27..235
 FT Domain /label= Mature_protein
 FT Domain 27..182
 FT Domain /label= Extracellular_domain
 FT Domain 183..205
 FT Domain /label= Transmembrane_domain
 FT Domain 206..235
 FT Domain /label= Cytoplasmic_domain

WO200109303-A2.
 08-FEB-2001.

PF 31-JUL-2000; 2000WO-US020679.
 XX
 PR 30-JUL-1999; 99US-0146170P.
 XX
 PA (VICA-) VICAL INC.
 XX
 XX Hermanson GG;
 XX WPI; 2001-123319/13.
 DR N-PSDB; AAF30310.
 XX

Immunogenic compositions comprising Flt-3 ligand encoding polynucleotide
 and one or more antigen, or cytokine encoding polynucleotides, useful for
 suppressing tumor growth and for treating autoimmune diseases (e.g.
 rheumatoid arthritis).

Claim 2; Page 132-133; 149pp; English.

XX The present sequence is that of human Fms-like tyrosine kinase (Flt-3
 CC ligand). The invention is directed to enhancing the immune response of a
 CC vertebrate to an antigen or a cytokine by administering in vivo, into a
 CC tissue of a vertebrate, a Flt-3 ligand-encoding polynucleotide, and 1 or
 CC more antigen- or cytokine-encoding polynucleotides. The Flt-3 ligand-
 CC encoding polynucleotide may encode the present full-length human Flt-3
 CC ligand polypeptide, or amino acids 27-180, 1-160, 27-185, 1-185, or 27-
 CC 235 of the ligand. The polynucleotides are incorporated into the cells of
 CC the vertebrate in vivo, and a prophylactically or therapeutically
 CC effective amount of Flt-3 ligand and 1 or more antigens or cytokines is
 CC produced in vivo. Pharmaceutical compositions comprising the
 CC polynucleotides are useful for suppressing tumour growth in a mammal. The
 CC tumour is melanoma, glioma or lymphoma, particularly B-cell lymphoma.
 CC They can also be used for the prophylactic and/or therapeutic treatment
 CC of: (a) bacterial (e.g. Bacillus infections), viral (e.g. hepatitis B and
 CC C in humans), parasitic (e.g. malaria) and fungal infections; (b)
 CC autoimmune diseases (e.g. rheumatoid arthritis and osteoarthritis); (c)
 CC cancer; and (d) Aujeszky's disease in pigs. Various other examples of
 CC these diseases are given in the specification
 XX

SQ Sequence 235 AA;

Query Match 100.0%; Score 1242; DB 4; Length 235;
 Best Local Similarity 100.0%; Pred. No. 5.8e-109;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYLLLLSSLSGLSGTDCSPHSPISDFAVKIRELSYLLQDPYTV 60
 DB 1 MTVLAPAWSPTTYLLLLSSLSGLSGTDCSPHSPISDFAVKIRELSYLLQDPYTV 60

QY 61 ASNLQDEELCGGLWRLVLAQRMWRLKTVAGSKMQLLERNVTEHFVTKCAFQPPPSCL 120
 DB 61 ASNLQDEELCGGLWRLVLAQRMWRLKTVAGSKMQLLERNVTEHFVTKCAFQPPPSCL 120

QY 121 RFVQTNISRLQSTSEQLVALKPWITRONFSRCLELQCPDSTLPPPSRPLEATAPT 180
 DB 121 RFVQTNISRLQSTSEQLVALKPWITRONFSRCLELQCPDSTLPPPSRPLEATAPT 180

QY 181 APQPPLLLLLPVGLLLAAACWLRWTRRRTPRGGEQVPPVPSQDILLVEH 235
 DB 181 APQPPLLLLLPVGLLLAAACWLRWTRRRTPRGGEQVPPVPSQDILLVEH 235

RESULT 5
 ABB08129
 ID ABB08129 standard; protein; 235 AA.
 XX ABB08129;
 AC ABB08129;
 XX 10-SEP-2002 (first entry)
 XX Human Flt3L polypeptide.
 KW Dendritic cell; mobilisation factor; T cell; adjuvant; antibacterial;
 KW fungicide; protozoicide; virucide; anti-inflammatory; anti-HIV;

KW tuberculostatic; cytostatic; human; Flt3L.
 XX Homo sapiens.
 XX WO200236141-A2.
 PN 10-MAY-2002.
 PD 30-OCT-2001; 2001WO-US044834.
 XX 02-NOV-2000; 2000US-0245721P.
 XX (IMMV) IMMUNEX CORP.
 PA Lynch DH, De Smedt TN, Maliszewski CR, Butz EA, Miller RE,
 PI Thomas EK;
 XX WPI; 2002-500114/53.
 DR
 XX Treating an individual suffering from infection, e.g. inflammation,
 PT chickenpox or AIDS, by administering a combination of dendritic cell
 PT mobilization factor or maturation agent, T cell enhancing factor and
 PT antigen-specific T cells.
 XX Disclosure; Page 37-38; 43pp; English.
 PS
 XX The invention relates to treating an individual at risk for or suffering
 CC from infection with a pathogenic or opportunistic organism. The method
 CC involves administering a combination of two to five agents comprising:
 CC (a) dendritic cell mobilisation factor; (b) dendritic cell maturation
 CC agent; (c) dendritic cell activation agent; (d) T cell enhancing factor;
 CC or (e) activated, antigen-specific T cells. The methods are useful for
 CC treating an individual at risk for or suffering from infection with a
 CC pathogenic or opportunistic organism, e.g. viruses (e.g. HIV), bacteria
 CC (e.g. M. tuberculosis), yeast, fungi (e.g. C. albicans) or protozoa (e.g.
 CC T. cruzi, which causes Chaga's disease). The methods are especially
 CC useful for treating an individual suffering from immunosuppression by
 CC enhancing a lymphocyte-mediated immune response. In particular, the
 CC method is useful for treating inflammations, chickenpox, oral or genital
 CC herpes, mononucleosis, multifocal leukoencephalopathy, hepatitis, AIDS, T
 CC cell leukemia or T cell lymphoma. The activated antigen-presenting
 CC dendritic cells are useful as a vaccine adjuvant. The present sequence
 CC represents a human Flt3L polypeptide fragment, that can be used as a
 CC dendritic cell mobilisation factor
 XX
 SQ Sequence 235 AA;

Query Match 100.0%; Score 1242; DB 5; Length 235;
 Best Local Similarity 100.0%; Pred. No. 5.8e-109;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTV 60
 Db 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTV 60
 QY 61 ASNLQDEELCGGLWRLVLAQRWMLRTVAGSKMQGLLERVNTIHFVTKCAFQPPPSCL 120
 Db 61 ASNLQDEELCGGLWRLVLAQRWMLRTVAGSKMQGLLERVNTIHFVTKCAFQPPPSCL 120
 QY 121 RFVQTNISRLLOETSEQLVALKPMITRQNFSCRLELCQCPDSSTLPPWSPRLEATPT 180
 Db 121 RFVQTNISRLLOETSEQLVALKPMITRQNFSCRLELCQCPDSSTLPPWSPRLEATPT 180
 QY 181 APQPLLLLLLLPVGLLLLLAAACWCLHWQTRRTTRPRGEQVPPVPSQDLLLLVEH 235
 Db 181 APQPLLLLLLLPVGLLLLLAAACWCLHWQTRRTTRPRGEQVPPVPSQDLLLLVEH 235

RESULT 6
 ABG31626
 ID ABG31626 standard; protein; 235 AA.
 XX
 AC ABG31626;

XX 29-NOV-2002 (first entry)
 XX Human Flt3L protein.
 XX Tumour; cancer; dendritic cell mobilisation factor; tumour-killing agent;
 KW dendritic cell maturation agent; T cell enhancing factor; skin cancer;
 KW antigen-specific T cell; prostate cancer; liver cancer; bone tumour;
 KW brain tumour; spinal cord tumour; cervical intraepithelial neoplasia;
 KW actinic keratosis; dendritic cell maturation stimulator; cytostatic;
 KW dendritic cell activator; T cell enhancer; human; Flt3L.
 XX
 OS Homo sapiens.
 XX WO200266044-A2.
 XX 29-AUG-2002.
 XX 23-OCT-2001; 2001WO-US046254.
 XX 24-OCT-2000; 2000US-0242868P.
 XX (IMMV) IMMUNEX CORP.
 XX Thomas EK, Lyman SD, Lynch DH, De Smedt TN, Maliszewski CR;
 XX WPI; 2002-674891/72.
 DR Treating an individual with tumors or cancers, e.g. liver cancer or brain
 PT tumor, by administering a combination of dendritic cell populations, T
 PT cell enhancing factors and activated, antigen-specific T cells.
 XX Disclosure; Page 38-39; 44pp; English.
 PS
 XX The present invention relates to a new method for treating a tumour-
 CC bearing subject. The method involves administering a combination of 2 to
 CC 5 agents comprising dendritic cell mobilisation factor, dendritic cell
 CC maturation agent, tumour-killing agent, T cell enhancing factor or
 CC activated, antigen-specific T cells. The method is useful for treating
 CC tumours or cancers in a subject e.g. skin cancer, prostate cancer, liver
 CC cancer, tumours of the bone, brain or spinal cord, actinic keratosis, or
 CC cervical intraepithelial neoplasia. The present amino acid sequence
 CC represents the human Flt3L protein that was used in the method of the
 CC invention
 XX
 SQ Sequence 235 AA;

Query Match 100.0%; Score 1242; DB 5; Length 235;
 Best Local Similarity 100.0%; Pred. No. 5.8e-109;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTV 60
 Db 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTV 60
 QY 61 ASNLQDEELCGGLWRLVLAQRWMLRTVAGSKMQGLLERVNTIHFVTKCAFQPPPSCL 120
 Db 61 ASNLQDEELCGGLWRLVLAQRWMLRTVAGSKMQGLLERVNTIHFVTKCAFQPPPSCL 120
 QY 121 RFVQTNISRLLOETSEQLVALKPMITRQNFSCRLELCQCPDSSTLPPWSPRLEATPT 180
 Db 121 RFVQTNISRLLOETSEQLVALKPMITRQNFSCRLELCQCPDSSTLPPWSPRLEATPT 180
 QY 181 APQPLLLLLLLPVGLLLLLAAACWCLHWQTRRTTRPRGEQVPPVPSQDLLLLVEH 235
 Db 181 APQPLLLLLLLPVGLLLLLAAACWCLHWQTRRTTRPRGEQVPPVPSQDLLLLVEH 235

RESULT 7
 AAO19091
 ID AAO19091 standard; protein; 235 AA.
 XX
 AC AAO19091;

XX DT . 22-NOV-2002 (first entry)
XX DE C neoformans antigen expressing dendritic cell related protein #1.
XX DE Human; fungicide; fungal infection; dendritic cell; antigen;
XX KW Cryptococcus neoformans; vaccine; immunostimulant.
XX OS Homo sapiens.
XX PN WO200266053-A2.
XX PD 29-AUG-2002.
XX PF 14-DEC-2001; 2001WO-US048288.
XX PR 04-JAN-2001; 2001US-0259653P.
XX PA (IMMV) IMMUNEX CORP.
XX PI Thomas EK;
XX DR WPI; 2002-674896/72.
XX PT Producing a population of activated, Cryptococcus neoformans antigen-presenting dendritic cells for preventing or treating C. neoformans infection comprises causing the obtained dendritic cells to present the antigen.
XX PS Disclosure; Page 25-26; 32pp; English.
XX CC The present invention relates to a method of producing a population of activated, Cryptococcus neoformans antigen-presenting dendritic cells, comprising causing the obtained dendritic cells to present the antigen and maturing the dendritic cells. The activated, C. neoformans antigen-expressing dendritic cells are useful for treating, or as vaccines or vaccine adjuvants against, C. neoformans infection, or for generating C. neoformans-specific T cells. The present sequence is a human protein shown in the exemplification of the invention
XX SQ Sequence 235 AA;
Query Match 100.0%; Score 1242; DB 5; Length 235;
Best Local Similarity 100.0%; Pred. No. 5.8e-109; Indels 0; Gaps 0;
Matches 235; Conservative 0; Mismatches 0;
QY 1 MTVLPAWSPPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVT 60
DB 1 MTVLPAWSPPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVT 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFTVKAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFTVKAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITQNFSCLELCQPDSSSTLPPWSPRPLEATPT 180
DB 121 RFVQTNISRLLOETSEQLVAKPWITQNFSCLELCQPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPLLLLLLPVGLLLAAAWCLHWQTRRRTPRPGEQVPPVPSQDLLLLVEH 235
DB 181 APQPLLLLLLPVGLLLAAAWCLHWQTRRRTPRPGEQVPPVPSQDLLLLVEH 235
RESULT 8
AAG79949
ID AAG79949 standard; protein; 235 AA.
XX AC AAG79949;
XX DT 23-OCT-2003 (revised)
XX DT 16-MAY-2003 (first entry)
XX DE Secreted human protein comparison protein #1.

XX KW Gene; secreted; tyrosine kinase receptor ligand; subfamily; phosphorylation; kidney; blood; lung; brain glioblastoma; prostate; colon; leukocyte.
XX OS unidentified.
XX PN WO2003002138-A1.
XX PD 09-JAN-2003.
XX PF 25-JUN-2002; 2002WO-US020172.
XX PR 27-JUN-2001; 2001US-00891498.
XX PA (PEKE) PE CORP NY.
XX PI Gong F, Ceccardi T, Ladunga I;
XX DR WPI; 2003-267895/26.
XX PT New isolated human secreted peptide and nucleic acids, useful for the development of human therapeutics and diagnostic compositions, drug screening assays, tissue typing and pharmacogenomic analysis.
XX PS Disclosure; Fig 2A; 66pp; English.
XX CC The sequences given in AAG79949-50 are included in the scope of the invention as they show high levels of similarity to the secreted peptide of the invention. The secreted protein is related to the tyrosine kinase receptor ligand subfamily. This protein effects protein phosphorylation. The human secreted peptides are useful in substantial and specific assays related to functional information of the peptide sequences, to raise antibodies or to elicit immune response, as reagents in assays that determine the levels of protein in biological fluids, and as markers for tissues where the corresponding protein is expressed. The peptides and the antibodies are useful in drug screening assays, tissue typing and pharmacogenomic analysis. The nucleic acid molecules are useful as probes, primers and chemical intermediates in biological assays, for constructing recombinant vectors, and expressing antigenic portions of the protein. The peptide and nucleic acid molecules are useful in the identification of therapeutic proteins and may serve as models or targets for the development of human therapeutic agents that modulate human secreted peptide activity in cells and tissues that express the secreted peptide, such as in kidney, blood, lung, brain glioblastomas, prostate, colon or leukocytes. (Updated on 23-OCT-2003 to standardise OS field)
XX SQ Sequence 235 AA;
Query Match 100.0%; Score 1242; DB 6; Length 235;
Best Local Similarity 100.0%; Pred. No. 5.8e-109; Indels 0; Gaps 0;
Matches 235; Conservative 0; Mismatches 0;
QY 1 MTVLPAWSPPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVT 60
DB 1 MTVLPAWSPPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVT 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFTVKAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEIHFTVKAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITQNFSCLELCQPDSSSTLPPWSPRPLEATPT 180
DB 121 RFVQTNISRLLOETSEQLVAKPWITQNFSCLELCQPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPLLLLLLPVGLLLAAAWCLHWQTRRRTPRPGEQVPPVPSQDLLLLVEH 235
DB 181 APQPLLLLLLPVGLLLAAAWCLHWQTRRRTPRPGEQVPPVPSQDLLLLVEH 235
RESULT 9
ABG74239
ID ABG74239 standard; protein; 235 AA.

XX AC ABG74239;
 XX DT 16-APR-2003 (first entry)
 XX DE Human Flt-3 ligand, Flt-3 L.
 XX KW Human; flt-3 ligand; flt-3 L; stem cell disorder; cancer; cytopaenia;
 KW myelodysplastic syndrome; gene therapy refractory anaemia;
 KW chronic myelomonocytic leukaemia; aplastic anaemia; Fanconi's anaemia;
 KW pancythaemia; antibody; bone marrow transplant; cytoreductive therapy;
 KW cell expansion; stem cell mobilisation.
 XX OS Homo sapiens.
 XX PN US2002160004-A1.
 XX PD 31-OCT-2002.
 XX PF 13-MAR-2002; 2002US-00095449.
 XX PR 24-MAY-1993; 93US-00068394.
 PR 12-AUG-1993; 93US-00106463.
 PR 25-AUG-1993; 93US-00111758.
 PR 03-DEC-1993; 93US-00162407.
 PR 07-MAR-1994; 94US-00209502.
 PR 11-MAY-1994; 94US-00243545.
 PR 19-MAY-1995; 95US-00444632.
 PR 24-JUN-1996; 96US-00669632.
 XX (LYMA/) LYMAN S D.
 PA (BECK/) BECKMANN M P.
 XX LYMAN SD, Beckmann MP;
 XX WPI; 2003-209211/20.
 DR N-PSDB; ASX16545.
 XX New antibody binding mouse flt-3 ligand, useful for screening, diagnostic
 PT and biological assays in disorders with elevated serum levels of flt-3
 PT ligand, such as Fanconi's and myelodysplastic syndrome, aplastic and
 PT refractory anemia.
 XX Example 4; Page 15-16; 18pp; English.
 XX The invention relates to an antibody that binds to mouse flt-3 ligand
 CC (flt-3 L) encoded by the cDNA insert in vector sfHAV-EO410 in Escherichia
 CC coli DH10B cells having American Type Culture Collection (ATCC) Accession
 CC No. 69286, where the ligand comprises the truncated extracellular domain
 CC of mouse flt-3 L. The methods and compositions are useful for screening,
 CC diagnostic and biological assays in disorders having elevated serum
 CC levels of flt-3 ligand, such as cancer, cytopaenia, myelodysplastic
 CC syndromes, stem cell disorders, refractory anaemia, chronic
 CC myelomonocytic leukaemia, aplastic anaemia, Fanconi's anaemia and
 CC pancythaemia. Flt3-L is also useful in allogeneic, syngeneic or
 CC autologous bone marrow transplants in patients undergoing cytoreductive
 CC therapies, as well as cell expansion. Flt3-L is also useful in gene
 CC therapy and progenitor and stem cell mobilisation systems. The present
 CC sequence represents human flt-3 L
 XX SQ Sequence 235 AA;
 Query Match 100.0%; Score 1242; DB 6; Length 235;
 Best Local Similarity 100.0%; Pred. No. 5.8e-109;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MTVLAPAWSPPTTYLLLLLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPYPTV 60
 DB 1 MTVLAPAWSPPTTYLLLLLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPYPTV 60
 QY 61 ASNLQDEELCGGLWRLVLAQRWNERLKT VAGSKMQGLLERVNTTEIHFVTKCAFPQPPSCL 120
 DB 61 ASNLQDEELCGGLWRLVLAQRWNERLKT VAGSKMQGLLERVNTTEIHFVTKCAFPQPPSCL 120

QY 121 RFVQTNISRLIQETSEQLVALKPWITRONFSRCLELOCCQPDSTLPPWSPRPLEATAPT 180
 DB 121 RFVQTNISRLIQETSEQLVALKPWITRONFSRCLELOCCQPDSTLPPWSPRPLEATAPT 180
 QY 181 APQPPELLLLLLLPVGLLLIAAACLHWQTRRRTPRGPGEQVPPVPSQDILLVEH 235
 DB 181 APQPPELLLLLLLPVGLLLIAAACLHWQTRRRTPRGPGEQVPPVPSQDILLVEH 235
 RESULT 10
 ADD22874
 ID ADD22874 standard; protein; 235 AA.
 XX AC ADD22874;
 XX DT 15-JAN-2004 (first entry)
 XX DE Human flt3-ligand.
 XX KW flt-3 ligand; Fanconi's anaemia; acquired aplastic anaemia;
 KW myelodysplastic syndrome; human.
 XX OS Homo sapiens.
 XX PN US6630143-B1.
 XX PD 07-OCT-2003.
 XX PF 24-JUN-1996; 96US-00669692.
 XX PR 24-MAY-1993; 93US-00068394.
 PR 12-AUG-1993; 93US-00106463.
 PR 25-AUG-1993; 93US-00111758.
 PR 03-DEC-1993; 93US-00162407.
 PR 07-MAR-1994; 94US-00209502.
 PR 11-MAY-1994; 94US-00243545.
 PR 19-MAY-1995; 95US-00444632.
 XX (TMV) IMMUNEX CORP.
 PA LYMAN SD, Beckmann PM;
 PI WPI; 2003-810548/76.
 DR N-PSDB; ADD22873.
 DR New antibodies specifically binding to human flt-3 ligand, useful in
 XX immunoassays for measuring concentration of flt3-L in plasma or serum, or
 XX for predicting the status of a disease such as Fanconi's anemia or
 XX acquired aplastic anemia.
 XX Claim 5; SEQ ID NO 6; 17pp; English.
 XX The invention relates to an antibody that binds specifically to human flt
 CC -3 ligand. The antibodies that are immunoreactive with flt-3 ligand are
 CC useful in ELISA to measure concentration of flt3-L in plasma or serum,
 CC and predicting the status of a disease such as Fanconi's anaemia,
 CC acquired aplastic anaemia, or myelodysplastic syndromes. The present
 CC sequence represents the amino acid sequence of the human flt3-ligand.
 XX SQ Sequence 235 AA;
 Query Match 100.0%; Score 1242; DB 7; Length 235;
 Best Local Similarity 100.0%; Pred. No. 5.8e-109;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MTVLAPAWSPPTTYLLLLLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPYPTV 60
 DB 1 MTVLAPAWSPPTTYLLLLLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPYPTV 60
 QY 61 ASNLQDEELCGGLWRLVLAQRWNERLKT VAGSKMQGLLERVNTTEIHFVTKCAFPQPPSCL 120
 DB 61 ASNLQDEELCGGLWRLVLAQRWNERLKT VAGSKMQGLLERVNTTEIHFVTKCAFPQPPSCL 120

QY 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCLELQCCPDSSSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCLELQCCPDSSSTLPPWSPRPLEATAPT 180
QY 181 APQPPLLLLLPVGILLAAACWLMQRTTRTPRPGEQVPPVSPQDLLLLVEH 235
DB 181 APQPPLLLLLPVGILLAAACWLMQRTTRTPRPGEQVPPVSPQDLLLLVEH 235

RESULT 11
ADD80915
ID ADD80915 standard; protein; 235 AA.
XX
AC ADD80915;
DT 29-JAN-2004 (first entry)
XX
DE Amino acid sequence for human flt3-ligand.
XX
KW Cancer; dendritic cell; tumour-specific immune response; tumour growth;
KW tumour incidence; tumour rejection; Flt3-ligand;
KW haematopoietic progenitor; stem cell; immune response; cytostatic; human.
XX
OS Homo sapiens.
XX
PN US2003113341-A1.
XX
PD 19-JUN-2003.
XX
PF 11-SEP-2002; 2002US-00241927.
XX
PR 04-OCT-1995; 95US-00539142.
PR 03-OCT-1996; 96US-00725540.
PR 17-SEP-1998; 98US-00154903.
PR 19-NOV-1999; 99US-00444027.
XX
PA (IMMV) IMMUNEX CORP.
XX
PI Lynch DH, Borges L, Miller RE, Maliszewski CR;
XX
DR WPI; 2003-851607/79.
DR N-PSDB; ADD80914.
XX
PT Treating cancer, increasing the number of dendritic cells, augmenting
PT tumour-specific immune response, and increasing tumor rejection in a
PT patient having cancer by administering a composition comprising Flt3-
PT ligand.
XX
PS Claim 12; SEQ ID NO 2; 15pp; English.
XX
CC The present invention relates to methods for treating cancer, increasing
CC the number of dendritic cells, augmenting a tumour-specific immune
CC response, reducing tumour growth, reducing tumour incidence, and
CC increasing tumour rejection in a patient having cancer. The method
CC involves administering a composition comprising Flt3-ligand. Flt3-ligand
CC can generate large numbers of dendritic cells from haematopoietic
CC progenitor and stem cells. Flt3-ligand can be used to augment an immune
CC response in vivo. The methods of the invention are useful for treating
CC cancer. The present sequence represents human flt3-ligand.
XX
SQ Sequence 235 AA;
Query Match 100.0%; Score 1242; DB 7; Length 235;
Best Local Similarity 100.0%; Pred. No. 5.8e-109;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
DB 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
QY 61 ASNLQDELCGLWRLVLAQRWMERLKTAVGSKMQGLLERVNTIHFVTKCAFQPPPSCL 120

DB 61 ASNLQDELCGLWRLVLAQRWMERLKTAVGSKMQGLLERVNTIHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCLELQCCPDSSSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCLELQCCPDSSSTLPPWSPRPLEATAPT 180
QY 181 APQPPLLLLLPVGILLAAACWLMQRTTRTPRPGEQVPPVSPQDLLLLVEH 235
DB 181 APQPPLLLLLPVGILLAAACWLMQRTTRTPRPGEQVPPVSPQDLLLLVEH 235

RESULT 12
ADE48117
ID ADE48117 standard; protein; 235 AA.
XX
AC ADE48117;
DT 29-JAN-2004 (first entry)
XX
DE Human Flt3-ligand.
XX
KW Flt3-ligand; vaccine; cancer; infection; human
KW Homo sapiens.
OS
XX WO200303083-A2.
PN
PD 09-OCT-2003.
XX
PF 26-MAR-2003; 2003WO-US009773.
XX
PR 26-MAR-2002; 2002US-0368263P.
PR 19-NOV-2002; 2002US-0427835P.
XX
PA (IMMV) IMMUNEX CORP.
XX
PI McKenna HJ, Liebowitz DN, Maliszewski CR;
XX
DR WPI; 2003-833534/77.
XX
PT Immunization protocols to enhance immune responses against vaccine
PT antigens using an Flt3-ligand, useful for preventing or treating viral or
PT bacterial infections, cancer, allergies, and fungal, parasitic and
PT protozoal infections.
XX
PS Disclosure; SEQ ID NO 1; 96pp; English.
XX
CC The present invention relates to immunizing a subject by administering
CC Flt3-ligand to a subject, optionally administering an auxiliary molecule,
CC and administering a vaccine to the subject, where the vaccine comprises
CC an antigen and an adjuvant. The methods and compositions of the present
CC invention are useful for preventing and/or treating viral or bacterial
CC infections, cancer, allergies, and fungal, parasitic, rickettsial and
CC protozoal infections. The present sequence represents human Flt3-ligand.
XX
SQ Sequence 235 AA;
Query Match 100.0%; Score 1242; DB 7; Length 235;
Best Local Similarity 100.0%; Pred. No. 5.8e-109;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
DB 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
QY 61 ASNLQDELCGLWRLVLAQRWMERLKTAVGSKMQGLLERVNTIHFVTKCAFQPPPSCL 120
DB 61 ASNLQDELCGLWRLVLAQRWMERLKTAVGSKMQGLLERVNTIHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCLELQCCPDSSSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCLELQCCPDSSSTLPPWSPRPLEATAPT 180

QY 181 APQPELLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGQVPPVPSQDLLLLVEH 235
 DB 181 APQPELLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGQVPPVPSQDLLLLVEH 235

RESULT 13

ID ADE80752 standard; protein; 235 AA.

XX AC ADE80752;

XX DT 29-JAN-2004 (first entry)

XX DE Microsatellite related FTJ3L wt ORF amino acid sequence.

XX KW frameshift mutation; microsatellite; cytostatic; neuroprotective;
 KW vasotropic; vaccine; gene therapy; neurodegenerative disorder;
 KW vascular disease; cancer.

XX OS Unidentified.

XX FN WO2003087162-A2.

XX PD 23-OCT-2003.

XX PF 17-APR-2003; 2003WO-EP004083.

XX PR 18-APR-2002; 2002EP-00008771.

XX PR 18-APR-2002; 2002EP-00008773.

XX PR 18-APR-2002; 2002EP-00008774.

XX PA (MTMM-) MTM LAB AG.

XX PI Von Knebel Doberitz M, Gebert J, Linnebacher M, Woerner S;

XX PI Riddler R, Bork P, Yuan YP;

XX DR WPI; 2003-845308/78.

XX PT New nucleic acid, useful in preparing a composition for diagnosing or

XX PT treating disorders associated with frameshift mutations in coding

XX PT microsatellite regions, e.g., neurodegenerative disorder, vascular

XX PT disease or cancer.

XX PS Claim 3; Fig 2; 62pp; English.

XX CC The present invention describes a nucleic acid sequence (I) which encodes
 CC a polypeptide consisting of TAF1B, MACS, JVRAG, EFVL3, TC6L1, ABCF1,
 CC AIMP2, CHD2, FL J11033, KIAA1032, ACVR2 or HT01 having a frameshift
 CC mutation. Also described: (1) a frameshift polypeptide (II); (2) a method
 CC for treating disorders associated with frameshift mutations in coding
 CC microsatellites; (3) a pharmaceutical composition comprising the nucleic
 CC acid and/or polypeptide; (4) a method for detecting a disorder associated
 CC with frameshift mutations in coding microsatellite regions; (5) a
 CC diagnostic or research kit for detecting a disorder associated with
 CC frameshift mutations in coding microsatellite regions, comprising the
 CC nucleic acid and/or frameshift polypeptide; and (6) a method for treating
 CC disorders associated with peptides arising from frameshift mutations in
 CC coding microsatellite regions in individuals. (I) and (II) have
 CC cytostatic, neuroprotective and vasotropic activities, and can be used in
 CC vaccines and in gene therapy. The nucleic acid (I) or frameshift
 CC polypeptide (II) can be used in detecting disorders associated with
 CC frameshift mutations in coding microsatellite regions or in preparing
 CC pharmaceutical compositions for treating disorders associated with
 CC frameshift mutations in coding microsatellite regions, e.g.,
 CC neurodegenerative disorder, vascular disease, cancer or precancerous
 CC stages of cancer. The present sequence represents a protein used in the
 CC exemplification of the present invention.

XX SQ Sequence 235 AA;

Query Match 100.0%; Score 1242; DB 7; Length 235;

Best Local Similarity 100.0%; Pred. No. 5.8e-109;

Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYLLLLSSGLSGTDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
 DB 1 MTVLAPAWSPTTYLLLLSSGLSGTDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
 QY 61 ASNLQDEELCGGLMRLVLAQRMERLKTAVGSKWGLLRYNTEHFVTKCAFQPPPSCL 120
 DB 61 ASNLQDEELCGGLMRLVLAQRMERLKTAVGSKWGLLRYNTEHFVTKCAFQPPPSCL 120
 QY 121 RFVQTNISRLQLQETSEQLVALKPMITRONFSCLELQCPDSSSTLPPFWSRPLEATAPT 180
 DB 121 RFVQTNISRLQLQETSEQLVALKPMITRONFSCLELQCPDSSSTLPPFWSRPLEATAPT 180
 QY 181 APQPELLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGQVPPVPSQDLLLLVEH 235
 DB 181 APQPELLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGQVPPVPSQDLLLLVEH 235

RESULT 14

AAG79950

ID AAG79950 standard; protein; 235 AA.

XX AC AAG79950;

XX DT 23-OCT-2003 (revised)

XX DT 16-MAY-2003 (first entry)

XX DE Secreted human protein comparison protein #2.

XX KW Gene; secreted; tyrosine kinase receptor ligand, subfamily;
 KW phosphorylation; kidney; blood; lung; brain glioblastoma; prostate;
 KW colon; leukocyte.

XX OS unidentified.

XX FN WO2003002138-A1.

XX PD 09-JAN-2003.

XX PF 25-JUN-2002; 2002WO-US020172.

XX PR 27-JUN-2001; 2001US-00891498.

XX PA (PEKE) PE CORP NY.

XX PI Gong F, Ceccardi T, Ladunga I;

XX DR WPI; 2003-267895/26.

XX PT New isolated human secreted peptide and nucleic acids, useful for the
 XX PT development of human therapeutics and diagnostic compositions, drug
 XX PT screening assays, tissue typing and pharmacogenomic analysis.

XX PS Disclosure; Fig 2B; 66pp; English.

XX CC The sequences given in AAG79949-50 are included in the scope of the
 CC invention as they show high levels of similarity to the secreted peptide
 CC of the invention. The secreted protein is related to the tyrosine kinase
 CC receptor ligand subfamily. This protein effects protein phosphorylation.
 CC The human secreted peptides are useful in substantial and specific assays
 CC related to functional information of the peptide sequences, to raise
 CC antibodies or to elicit immune response, as reagents in assays that
 CC determine the levels of protein in biological fluids, and as markers for
 CC tissues where the corresponding protein is expressed. The peptides and
 CC the antibodies are useful in drug screening assays, tissue typing and
 CC pharmacogenomic analysis. The nucleic acid molecules are useful as
 CC probes, primers and chemical intermediates in biological assays, for
 CC constructing recombinant vectors, and expressing antigenic portions of
 CC the protein. The peptide and nucleic acid molecules are useful in the
 CC identification of therapeutic proteins and may serve as models or targets
 CC for the development of human therapeutic agents that modulate human
 CC secreted peptide activity in cells and tissues that express the secreted
 CC peptide, such as in kidney, blood, lung, brain glioblastoma, prostate,

CC colon or leukocytes. (Updated on 23-OCT-2003 to standardise OS field)

XX Sequence 235 AA; Query Match 99.6%; Score 1237; DB 6; Length 235; Best Local Similarity 99.6%; Pred. No. 1.7e-108; Mismatches 0; Indels 0; Gaps 0; Matches 234; Conservative 0

QY 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
DB 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLVRVTEIHFTVKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLVRVTEIHFTVKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRQNFRCLELQCPDSDSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRQNFRCLELQCPDSDSTLPPWSPRPLEATAPT 180
QY 181 APQPLLLLLLPVGLLLAAACWCLHWQTRRTTRPRGQVPPVPSQDLLLLVEH 235
DB 181 APQPLLLLLLPVGLLLAAACWCLHWQTRRTTRPRGQVPPVPSQDLLLLVEH 235

RESULT 15
AAR66175
ID AAR66175 standard; peptide; 235 AA.
AC AAR66175;
XX
DT 25-MAR-2003 (revised)
DT 10-AUG-1995 (first entry)
XX
DE Human S86/S109 Flt3 ligand peptide sequence.
XX
KW Flt3 ligand; tyrosine kinase receptor ligand.
XX Homo sapiens.
OS
XX
FN WO9426891-A2.
XX
PD 24-NOV-1994.
XX
PF 18-MAY-1994; 94WO-US005150.
XX
PR 19-MAY-1993; 93US-00065231.
PR 07-JUL-1993; 93US-00089283.
PR 16-JUL-1993; 93US-00092549.
PR 13-AUG-1993; 93US-00106340.
PR 24-AUG-1993; 93US-00112391.
PR 19-NOV-1993; 93US-00151111.
PR 03-DEC-1993; 93US-00162413.
XX

(SCHE) SCHERING CORP.
PA (INRM) INST NAT SANTE & RECH MEDICALE.
XX
PI Hannum CH, Lee FD, Birnbaum D, Culpepper JA;
XX
DR WPI: 1995-006787/01.
DR N-PSDB; AAR79642.
XX
XX New ligand for the Flt3 tyrosine kinase receptor - and related nucleic
PT acid, vectors, host cells and antibodies, useful for treating abnormal
PT cell physiology and proliferation, e.g. cancer, also for diagnosis and
PT drug screening.
XX
PS Claim 11; Page 76-77; 90pp; English.
XX
CC A cDNA library from the human stromal cell line 29SV48, in pME18S, was
CC screened with an 800 bp fragment derived from mouse clone T118. This
CC fragment encompasses the coding region conserved between two mouse
CC clones, T118 and T110. Approx. 20 positive clones were selected and

CC partially sequenced. Two clones, S86 and S109, were found to be approx.
CC 75% homologous to the mouse clones over the first 163 AAs. Clone S86
CC continued to show homology to T110 until the stop codon, although to a
CC lesser degree, for an overall homology of 66%. Clones T118 and S109 do
CC not show homology to each other or to the other clones after mouse
CC residue 163 (human residue 160). An additional mouse clone designated MB8
CC has a 29 AA insert at the junction between the common and divergent
CC portions of the mouse ligand. (Updated on 25-MAR-2003 to correct PN
CC field.)

XX Sequence 235 AA;
SQ Query Match 99.5%; Score 1236; DB 2; Length 235;
Best Local Similarity 99.6%; Pred. No. 2.1e-108;
Matches 234; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
DB 1 MTVLAPAWSPTTYLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLVRVTEIHFTVKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLVRVTEIHFTVKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRQNFRCLELQCPDSDSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRQNFRCLELQCPDSDSTLPPWSPRPLEATAPT 180
QY 181 APQPLLLLLLPVGLLLAAACWCLHWQTRRTTRPRGQVPPVPSQDLLLLVEH 235
DB 181 APQPLLLLLLPVGLLLAAACWCLHWQTRRTTRPRGQVPPVPSQDLLLLVEH 235

Search completed: April 8, 2004, 17:05:48
Job time : 66.4973 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 8, 2004, 17:07:57 ; Search time 47.2554 Seconds
(without alignments)
1307.583 Million cell updates/sec

Title: US-08-994-468-6
Perfect score: 1242
Sequence: 1 MTVLAPAWSPPTVYLLILLLL.....RPGEQVPVPSPQDILLVH 235

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1073127 seqs, 262937947 residues

Total number of hits satisfying chosen parameters: 1073127

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA.*

1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep.*
5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
6: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep.*
7: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
8: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
9: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
10: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
11: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
12: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
13: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep.*
14: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep.*
15: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep.*
16: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
17: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*
18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep.*

ALIGNMENTS

RESULT 1

US-08-994-468-6
; Sequence 6, Application US/08994468
; Publication No. US20030148516A1
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESSES:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/994,468
; FILING DATE: 19-Dec-1997
; CLASSIFICATION: <Unknown>
; PRIORITY INFORMATION DATA:
; APPLICATION NUMBER: 08/162,407
; FILING DATE: <Unknown>
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query Match	Score	Length	ID	Description
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2	1242	100.0	235	9	US-09-904-536-1
3	1242	100.0	235	9	US-09-904-536-1
4	1242	100.0	235	9	US-09-904-536-1
5	1242	100.0	235	12	US-10-643-384-2
6	1242	100.0	235	13	US-10-095-449-6
7	1242	100.0	235	14	US-10-241-927-2
8	1242	100.0	235	14	US-10-314-035-6
9	1242	100.0	235	16	US-10-401-364-1
10	1236	99.5	235	15	US-10-116-275-174
11	1236	99.5	235	15	US-10-440-464-60
12	1124	90.5	212	9	US-09-904-536-10
13	1114	89.7	209	9	US-09-904-536-18
14	1110	89.4	209	9	US-09-904-536-9
15	1110	89.4	209	9	US-09-904-536-12

TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 587-0430
TELEFAX: (206) 233-0644
TELEX: 756822
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-08-994-468-6

Query Match 100.0%; Score 1242; DB 8; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
DB 1 MTVLAPAWSPTTYILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEIHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEIHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQLCQPDSSSTLPPWSPRPLEATPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQLCQPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRTRTPRGEQVPPVPSQDILLVEH 235
DB 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRTRTPRGEQVPPVPSQDILLVEH 235

RESULT 2
US-09-448-378-1
Sequence 1, Application US/09448378
Patent No. US20020034517A1
GENERAL INFORMATION:
APPLICANT: Brasel, Kenneth
TITLE OF INVENTION: Dendritic Cell Stimulatory Factor
FILE REFERENCE: 2836-D
CURRENT APPLICATION NUMBER: US/09/448,378
CURRENT FILING DATE: 1999-11-23
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patent in version 3.0
SEQ ID NO 1
LENGTH: 235
TYPE: PRT
ORGANISM: Homo sapiens
US-09-448-378-1

Query Match 100.0%; Score 1242; DB 9; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
DB 1 MTVLAPAWSPTTYILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEIHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEIHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQLCQPDSSSTLPPWSPRPLEATPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQLCQPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRTRTPRGEQVPPVPSQDILLVEH 235
DB 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRTRTPRGEQVPPVPSQDILLVEH 235

RESULT 3
US-09-983-806-6
Sequence 6, Application US/09983806
Patent No. US20020107365A1
GENERAL INFORMATION:
APPLICANT: Lyman, Stewart D.
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seattle
STATE: Washington
COUNTRY: US
ZIP: 98101
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh 7.0.1
SOFTWARE: Microsoft Word, Version #5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/983,806
FILING DATE: 25-Oct-2001
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/444,626
FILING DATE: 19-May-1995
APPLICATION NUMBER: US 08/162,407
FILING DATE: 03-DEC-1993
APPLICATION NUMBER: 08/111,758
FILING DATE: August 25, 1993
APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
APPLICATION NUMBER: 08/068,394
FILING DATE: May 24, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Malaska, Stephen L.
REGISTRATION NUMBER: 32,655
REFERENCE/DOCKET NUMBER: 2813-C
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 587-0430
TELEFAX: (206) 233-0644
TELEX: 756822
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-09-983-806-6

Query Match 100.0%; Score 1242; DB 9; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
DB 1 MTVLAPAWSPTTYILLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPVTY 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEIHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEIHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQLCQPDSSSTLPPWSPRPLEATPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQLCQPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRTRTPRGEQVPPVPSQDILLVEH 235
DB 181 APQPPLLLLLLPGVLLLLAAWCLHWQTRTRTPRGEQVPPVPSQDILLVEH 235

RESULT 4

US-09-904-536-1
 ; Sequence 1, Application US/09904536
 ; Patent No. US20020111475A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Graddis, Thomas J.
 ; APPLICANT: McGrew, Jeffrey T.
 ; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
 ; FILE REFERENCE: 03260.0028
 ; CURRENT APPLICATION NUMBER: US/09/904,536
 ; CURRENT FILING DATE: 2001-07-16
 ; PRIOR APPLICATION NUMBER: 09/109,100
 ; PRIOR FILING DATE: 1999-07-02
 ; NUMBER OF SEQ ID NOS: 20
 ; SOFTWARE: Patent in Ver. 2.1
 ; SEQ ID NO 1
 ; LENGTH: 235
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-09-904-536-1

Query Match 100.0%; Score 1242; DB 9; Length 235;
 Best Local Similarity 100.0%; Pred. No. 1.1e-102;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV 60
 Db 1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV 60
 QY 61 ASNLQDEELCGGLWRLVLAQRWNERLKTAVGSKMQLLERNVTEIHFTVKCAFQPPPSCL 120
 Db 61 ASNLQDEELCGGLWRLVLAQRWNERLKTAVGSKMQLLERNVTEIHFTVKCAFQPPPSCL 120
 QY 121 RFVQTNISRLLOETSEQLVALKPWITRONFSRCLQLCCQPDSDSTLPPWSPRPLEATAPT 180
 Db 121 RFVQTNISRLLOETSEQLVALKPWITRONFSRCLQLCCQPDSDSTLPPWSPRPLEATAPT 180
 QY 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRTTRPRGEOVPPVPSQDLLLLVEH 235
 Db 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRTTRPRGEOVPPVPSQDLLLLVEH 235

RESULT 5

US-10-643-384-2
 ; Sequence 2, Application US/10643384
 ; Publication No. US20040037845A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Brasel, Kenneth A.
 ; APPLICANT: Lyman, Stewart D.
 ; APPLICANT: Maraskovsky, Eugene
 ; APPLICANT: McKenna, Hilary J.
 ; APPLICANT: Lynch, David H.
 ; TITLE OF INVENTION: THE USE OF FLT3-LIGAND IN THE TREATMENT OF INFECTION
 ; FILE REFERENCE: 2836-H
 ; CURRENT APPLICATION NUMBER: US/10/643,384
 ; CURRENT FILING DATE: 2003-08-19
 ; PRIOR APPLICATION NUMBER: 10/241,927
 ; PRIOR FILING DATE: 2002-09-11
 ; PRIOR APPLICATION NUMBER: 09/444,027
 ; PRIOR FILING DATE: 1999-11-19
 ; PRIOR APPLICATION NUMBER: 09/154,903
 ; PRIOR FILING DATE: 1998-09-17
 ; PRIOR APPLICATION NUMBER: 08/725,540
 ; PRIOR FILING DATE: 1996-10-03
 ; PRIOR APPLICATION NUMBER: 08/539,142
 ; PRIOR FILING DATE: 1995-10-04
 ; NUMBER OF SEQ ID NOS: 2
 ; SOFTWARE: Patent in version 3.2
 ; SEQ ID NO 2
 ; LENGTH: 235
 ; TYPE: PRT
 ; ORGANISM: Homo sapien

US-10-643-384-2

Query Match 100.0%; Score 1242; DB 12; Length 235;
 Best Local Similarity 100.0%; Pred. No. 1.1e-102;
 Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV 60
 Db 1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV 60
 QY 61 ASNLQDEELCGGLWRLVLAQRWNERLKTAVGSKMQLLERNVTEIHFTVKCAFQPPPSCL 120
 Db 61 ASNLQDEELCGGLWRLVLAQRWNERLKTAVGSKMQLLERNVTEIHFTVKCAFQPPPSCL 120
 QY 121 RFVQTNISRLLOETSEQLVALKPWITRONFSRCLQLCCQPDSDSTLPPWSPRPLEATAPT 180
 Db 121 RFVQTNISRLLOETSEQLVALKPWITRONFSRCLQLCCQPDSDSTLPPWSPRPLEATAPT 180
 QY 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRTTRPRGEOVPPVPSQDLLLLVEH 235
 Db 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRTTRPRGEOVPPVPSQDLLLLVEH 235

RESULT 6

US-10-095-449-6
 ; Sequence 6, Application US/10095449
 ; Publication No. US20020160004A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Lyman, Stewart D.
 ; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
 ; NUMBER OF SEQUENCES: 8
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
 ; STREET: 51 University Street
 ; CITY: Seattle
 ; STATE: Washington
 ; COUNTRY: US
 ; ZIP: 98101
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: Apple Macintosh
 ; OPERATING SYSTEM: Macintosh 7.0.1
 ; SOFTWARE: Microsoft Word, Version #5.1
 ; CURRENT APPLICATION NUMBER: US/10/095,449
 ; FILING DATE: 13-Mar-2002
 ; CLASSIFICATION: 530
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 08/669,692
 ; FILING DATE: 24-JUN-1996
 ; APPLICATION NUMBER: US/08/162,407
 ; FILING DATE: December 3, 1993
 ; APPLICATION NUMBER: 08/111,758
 ; FILING DATE: August 25, 1993
 ; APPLICATION NUMBER: 08/106,463
 ; FILING DATE: August 12, 1993
 ; APPLICATION NUMBER: 08/068,394
 ; FILING DATE: May 24, 1993
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Malaska, Stephen L.
 ; REGISTRATION NUMBER: 32,655
 ; REFERENCE/DOCKET NUMBER: 2813-C
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (206) 587-0430
 ; TELEFAX: (206) 233-0644
 ; TELEX: 756822
 ; INFORMATION FOR SEQ ID NO: 6:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 235 amino acids
 ; TYPE: amino acid
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 6;
US-10-095-449-6
Query Match 100.0%; Score 1242; DB 13; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
DB 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
QY 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
DB 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
RESULT 7
US-10-241-927-2
; Sequence 2, Application US/10241927
; Publication No. US20030113341A1
; GENERAL INFORMATION:
; APPLICANT: Lynch, David H.
; APPLICANT: Borges, Luis
; APPLICANT: Miller, Robert E.
; APPLICANT: Maliszewski, Charles R.
; TITLE OF INVENTION: THE USE OF FLT3-LIGAND IN THE TREATMENT OF CANCER
; FILE REFERENCE: 2836-F
; CURRENT APPLICATION NUMBER: US/10/241,927
; CURRENT FILING DATE: 2002-09-11
; PRIOR APPLICATION NUMBER: US 09/444,027
; PRIOR FILING DATE: 1999-11-19
; PRIOR APPLICATION NUMBER: US 09/154,903
; PRIOR FILING DATE: 1998-09-17
; PRIOR APPLICATION NUMBER: US 08/725,540
; PRIOR FILING DATE: 1996-10-03
; PRIOR APPLICATION NUMBER: US 08/539,142
; PRIOR FILING DATE: 1995-10-04
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 235
; TYPE: PRT
; ORGANISM: homo sapiens
US-10-241-927-2
Query Match 100.0%; Score 1242; DB 14; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
DB 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
QY 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
DB 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
RESULT 8
US-10-314-035-6
; Sequence 6, Application US/10314035
; Publication No. US20030157069A1
; GENERAL INFORMATION:
; APPLICANT: LYMAN, Stewart D.
; APPLICANT: BECKMANN, M. Patricia
; TITLE OF INVENTION: METHODS OF USING FLT3-LIGAND IN HEMATOPOIETIC CELL TRANSPLANTATI
; FILE REFERENCE: 2813-P
; CURRENT APPLICATION NUMBER: US/10/314,035
; CURRENT FILING DATE: 2002-12-05
; PRIOR APPLICATION NUMBER: US 08/994,468
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 08/444,627
; PRIOR FILING DATE: 1995-05-19
; PRIOR APPLICATION NUMBER: US 08/243,545
; PRIOR FILING DATE: 1994-05-11
; PRIOR APPLICATION NUMBER: US 08/209,502
; PRIOR FILING DATE: 1994-03-07
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 235
; TYPE: PRT
; ORGANISM: Homo sapien
US-10-314-035-6
Query Match 100.0%; Score 1242; DB 14; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
DB 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
QY 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
DB 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
RESULT 9
US-10-401-364-1
; Sequence 1, Application US/10401364
; Publication No. US20040022760A1
; GENERAL INFORMATION:
; APPLICANT: McKenna, Hilary J.
; APPLICANT: Liebowitz, David N.
; APPLICANT: Maliszewski, Charles R.
; TITLE OF INVENTION: METHODS OF USING FLT3-LIGAND IN IMMUNIZATION PROTOCOLS
; FILE REFERENCE: 3399-B
; CURRENT APPLICATION NUMBER: US/10/401,364
; CURRENT FILING DATE: 2003-03-26
; PRIOR APPLICATION NUMBER: US 60/368,263
; PRIOR FILING DATE: 2002-03-26
; PRIOR APPLICATION NUMBER: US 60/427,835
; PRIOR FILING DATE: 2002-11-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 235
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-401-364-1

SEQUENCE DESCRIPTION: SEQ ID NO: 6;
US-10-095-449-6
Query Match 100.0%; Score 1242; DB 13; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
DB 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
QY 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
DB 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
RESULT 7
US-10-241-927-2
; Sequence 2, Application US/10241927
; Publication No. US20030113341A1
; GENERAL INFORMATION:
; APPLICANT: Lynch, David H.
; APPLICANT: Borges, Luis
; APPLICANT: Miller, Robert E.
; APPLICANT: Maliszewski, Charles R.
; TITLE OF INVENTION: THE USE OF FLT3-LIGAND IN THE TREATMENT OF CANCER
; FILE REFERENCE: 2836-F
; CURRENT APPLICATION NUMBER: US/10/241,927
; CURRENT FILING DATE: 2002-09-11
; PRIOR APPLICATION NUMBER: US 09/444,027
; PRIOR FILING DATE: 1999-11-19
; PRIOR APPLICATION NUMBER: US 09/154,903
; PRIOR FILING DATE: 1998-09-17
; PRIOR APPLICATION NUMBER: US 08/725,540
; PRIOR FILING DATE: 1996-10-03
; PRIOR APPLICATION NUMBER: US 08/539,142
; PRIOR FILING DATE: 1995-10-04
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 235
; TYPE: PRT
; ORGANISM: homo sapiens
US-10-241-927-2
Query Match 100.0%; Score 1242; DB 14; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
DB 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
QY 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
DB 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
RESULT 8
US-10-314-035-6
; Sequence 6, Application US/10314035
; Publication No. US20030157069A1
; GENERAL INFORMATION:
; APPLICANT: LYMAN, Stewart D.
; APPLICANT: BECKMANN, M. Patricia
; TITLE OF INVENTION: METHODS OF USING FLT3-LIGAND IN HEMATOPOIETIC CELL TRANSPLANTATI
; FILE REFERENCE: 2813-P
; CURRENT APPLICATION NUMBER: US/10/314,035
; CURRENT FILING DATE: 2002-12-05
; PRIOR APPLICATION NUMBER: US 08/994,468
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 08/444,627
; PRIOR FILING DATE: 1995-05-19
; PRIOR APPLICATION NUMBER: US 08/243,545
; PRIOR FILING DATE: 1994-05-11
; PRIOR APPLICATION NUMBER: US 08/209,502
; PRIOR FILING DATE: 1994-03-07
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 235
; TYPE: PRT
; ORGANISM: Homo sapien
US-10-314-035-6
Query Match 100.0%; Score 1242; DB 14; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
DB 1 MTVLAPAWSPTTYLLLLSSLSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDYPTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
DB 121 RFVQTNISRLQETSEQLVAKPWITRONFSRCLQEQDSDSTLPPWSPRPLEATAPT 180
QY 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
DB 181 APQPPLLLLLPVGLLLAAAWCLHWQTRRRTRPRGEGVPPVPSQDLLLLVEH 235
RESULT 9
US-10-401-364-1
; Sequence 1, Application US/10401364
; Publication No. US20040022760A1
; GENERAL INFORMATION:
; APPLICANT: McKenna, Hilary J.
; APPLICANT: Liebowitz, David N.
; APPLICANT: Maliszewski, Charles R.
; TITLE OF INVENTION: METHODS OF USING FLT3-LIGAND IN IMMUNIZATION PROTOCOLS
; FILE REFERENCE: 3399-B
; CURRENT APPLICATION NUMBER: US/10/401,364
; CURRENT FILING DATE: 2003-03-26
; PRIOR APPLICATION NUMBER: US 60/368,263
; PRIOR FILING DATE: 2002-03-26
; PRIOR APPLICATION NUMBER: US 60/427,835
; PRIOR FILING DATE: 2002-11-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 235
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-401-364-1

Db 2 SGTDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWME 61
Qy 85 RLKTVAGSKMQLLERVNTIHFVTKCAFQPPSPCLRFVQTNISRLLOETSEQLVAKPW 144
Db 62 RLKTVAGSKMQLLERVNTIHFVTKCAFQPPSPCLRFVQTNISRLLOETSEQLVAKPW 121
Qy 145 ITRQNFRCLELCQCPDSSSTLPPWSPRPLEATAPQPPPLLLLLLPGVLLLLAAWCLH 204
Db 122 ITRQNFRCLELCQCPDSSSTLPPWSPRPLEATAPQPPPLLLLLLPGVLLLLAAWCLH 181
Qy 205 LHWORTRRTPRPGEQVPPVPSQDLLLLVEH 235
Db 182 LHWORTRRTPRPGEQVPPVPSQDLLLLVEH 212

RESULT 13

US-09-904-536-18
; Sequence 18, Application US/09904536
; Patent No. US20020111475A1
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 18
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-904-536-18

Query Match 89.7%; Score 1114; DB 9; Length 209;
Best Local Similarity 100.0%; Pred. No. 2.4e-91; Indels 0; Gaps 0;
Matches 209; Conservative 0; Mismatches 0;
Qy 27 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWME 86
Db 1 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWME 60
Qy 87 KTVAGSKMQLLERVNTIHFVTKCAFQPPSPCLRFVQTNISRLLOETSEQLVAKPWIT 146
Db 61 KTVAGSKMQLLERVNTIHFVTKCAFQPPSPCLRFVQTNISRLLOETSEQLVAKPWIT 120
Qy 147 RQNFRCLELCQCPDSSSTLPPWSPRPLEATAPQPPPLLLLLLPGVLLLLAAWCLH 206
Db 121 RQNFRCLELCQCPDSSSTLPPWSPRPLEATAPQPPPLLLLLLPGVLLLLAAWCLH 180
Qy 207 WORTRRTPRPGEQVPPVPSQDLLLLVEH 235
Db 181 WORTRRTPRPGEQVPPVPSQDLLLLVEH 209

RESULT 14

US-09-904-536-9
; Sequence 9, Application US/09904536
; Patent No. US20020111475A1
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9

; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-904-536-9
Query Match 89.4%; Score 1110; DB 9; Length 209;
Best Local Similarity 99.5%; Pred. No. 5.5e-91;
Matches 208; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Qy 27 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWME 86
Db 1 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWME 60
Qy 87 KTVAGSKMQLLERVNTIHFVTKCAFQPPSPCLRFVQTNISRLLOETSEQLVAKPWIT 146
Db 61 KTVAGSKMQLLERVNTIHFVTKCAFQPPSPCLRFVQTNISRLLOETSEQLVAKPWIT 120
Qy 147 RQNFRCLELCQCPDSSSTLPPWSPRPLEATAPQPPPLLLLLLPGVLLLLAAWCLH 206
Db 121 RQNFRCLELCQCPDSSSTLPPWSPRPLEATAPQPPPLLLLLLPGVLLLLAAWCLH 180
Qy 207 WORTRRTPRPGEQVPPVPSQDLLLLVEH 235
Db 181 WORTRRTPRPGEQVPPVPSQDLLLLVEH 209

RESULT 15

US-09-904-536-12
; Sequence 12, Application US/09904536
; Patent No. US20020111475A1
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-904-536-12

Query Match 89.4%; Score 1110; DB 9; Length 209;
Best Local Similarity 99.5%; Pred. No. 5.5e-91;
Matches 208; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Qy 27 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWME 86
Db 1 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWME 60
Qy 87 KTVAGSKMQLLERVNTIHFVTKCAFQPPSPCLRFVQTNISRLLOETSEQLVAKPWIT 146
Db 61 KTVAGSKMQLLERVNTIHFVTKCAFQPPSPCLRFVQTNISRLLOETSEQLVAKPWIT 120
Qy 147 RQNFRCLELCQCPDSSSTLPPWSPRPLEATAPQPPPLLLLLLPGVLLLLAAWCLH 206
Db 121 RQNFRCLELCQCPDSSSTLPPWSPRPLEATAPQPPPLLLLLLPGVLLLLAAWCLH 180
Qy 207 WORTRRTPRPGEQVPPVPSQDLLLLVEH 235
Db 181 WORTRRTPRPGEQVPPVPSQDLLLLVEH 209

Search completed: April 8, 2004, 17:17:20
Job time : 48.2554 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 8, 2004, 17:03:57 ; Search time 21.0734 Seconds

Perfect score: 1242
Sequence: 1 MVLAPANSPTTYLLILL.....RPGQVPPVSPQDLLVH 235
575.708 Million cell updates/sec

Title: US-08-994-468-6

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA*
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2: /cgn2_6/prodata/2/iaa/5B-COMB.pep.*
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6: /cgn2_6/prodata/2/iaa/6B-COMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1242	100.0	235	1	US-08-243-545-6
2	1242	100.0	235	2	US-08-993-962-6
3	1242	100.0	235	3	US-09-160-841-6
4	1242	100.0	235	4	US-09-109-100-1
5	1242	100.0	235	5	US-08-669-692-6
6	1242	100.0	235	6	US-08-444-626-6
7	1242	100.0	235	7	PCT-US94-05365-6
8	1124	90.5	212	3	US-09-109-100-10
9	1114	89.7	209	3	US-09-109-100-18
10	1110	89.4	209	3	US-09-109-100-9
11	1110	89.4	209	3	US-09-109-100-12
12	1110	89.4	209	3	US-09-109-100-14
13	1110	89.4	209	3	US-09-109-100-17
14	1108	89.2	209	3	US-09-109-100-11
15	1108	89.2	209	3	US-09-109-100-15
16	1107	89.1	209	3	US-09-109-100-13
17	1106	89.0	209	3	US-09-109-100-8
18	1100	88.6	209	3	US-09-109-100-16
19	855.5	72.1	294	4	US-09-322-409-7
20	855.5	72.1	294	4	US-09-451-527-7
21	894.5	72.0	291	4	US-09-322-409-44
22	894.5	72.0	291	4	US-09-451-527-44
23	797.5	64.2	268	4	US-09-322-409-23
24	797.5	64.2	268	4	US-09-451-527-23
25	796.5	64.1	276	4	US-09-322-409-26
26	796.5	64.1	276	4	US-09-451-527-26
27	791.5	63.7	265	4	US-09-322-409-49

28 791.5 63.7 265 4 US-09-451-527-49
29 768.5 61.9 231 1 US-08-243-545-2
30 768.5 61.9 231 1 US-08-993-962-2
31 768.5 61.9 231 3 US-09-160-841-2
32 768.5 61.9 231 4 US-08-669-692-2
33 768.5 61.9 231 4 US-08-444-626-2
34 768.5 61.9 231 5 PCT-US94-05365-2
35 765.5 61.6 231 1 US-08-220-379B-7
36 765.5 61.6 231 5 PCT-US95-03866-6
37 698.5 56.2 250 4 US-09-322-409-31
38 698.5 56.2 250 4 US-09-451-527-31
39 506.5 40.8 137 3 US-09-109-100-19
40 154 12.4 42 5 PCT-US94-05150-17
41 91.5 7.4 675 1 US-08-317-522A-9
42 91.5 7.4 675 1 US-08-439-818A-9
43 91.5 7.4 675 2 US-08-751-965-9
44 91.5 7.4 675 2 US-08-738-975-9
45 91.5 7.4 675 2 US-08-728-626-9

ALIGNMENTS

RESULT 1
US-08-243-545-6
; Sequence 6, Application US/08243545
; Patent No. 5554512
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/243,545
; FILING DATE: 11-MAY-1994
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/162,407
; FILING DATE: 03-DEC-1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELEPHONE: (206) 587-0430
; TELEFAX: (206) 233-0644
; TELETYPE: 756822
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids

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; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-243-545-6

Query Match 100.0%; Score 1242; DB 1; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSPHSPISDFAVKIRELSYLLQDYPVTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEHFVTKAFQPPPSCL 120
Db 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEHFVTKAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITRONFSCLQLQCPDSSSTLPPWSPRPLEATPT 180
Db 121 RFVQTNISRLLOETSEQLVAKPWITRONFSCLQLQCPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPPLLLLLPVGLLLAAACWCLHWQTRRRTPRPGEQVPPVPSQDILLVEH 235
Db 181 APQPPLLLLLPVGLLLAAACWCLHWQTRRRTPRPGEQVPPVPSQDILLVEH 235

RESULT 2
US-08-993-962-6
; Sequence 6, Application US/08993962
; Patent No. 5843423
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,962
; FILING DATE: December 18, 1997
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/162,407
; FILING DATE: December 3, 1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 587-0430
; TELEFAX: (206) 233-0644
; TELEX: 756822

; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-993-962-6

Query Match 100.0%; Score 1242; DB 2; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSPHSPISDFAVKIRELSYLLQDYPVTV 60
Db 1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSPHSPISDFAVKIRELSYLLQDYPVTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEHFVTKAFQPPPSCL 120
Db 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEHFVTKAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITRONFSCLQLQCPDSSSTLPPWSPRPLEATPT 180
Db 121 RFVQTNISRLLOETSEQLVAKPWITRONFSCLQLQCPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPPLLLLLPVGLLLAAACWCLHWQTRRRTPRPGEQVPPVPSQDILLVEH 235
Db 181 APQPPLLLLLPVGLLLAAACWCLHWQTRRRTPRPGEQVPPVPSQDILLVEH 235

RESULT 3
US-09-160-841-6
; Sequence 6, Application US/09160841
; Patent No. 6190655
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/160,841
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/162,407
; FILING DATE: December 3, 1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 587-0430
; TELEFAX: (206) 233-0644
; TELEX: 756822
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/ INFORMATION FOR SEQ ID NO: 6:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 235 amino acids
/ TYPE: amino acid
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
/ US-09-160-841-6

Query Match      100.0%; Score 1242; DB 3; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 MTLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQGLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPT 180
DB 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPLLILLLLPVGLLLAAACLHWQTRRRTRPRGQVPPVPSQDILLVH 235
DB 181 APQPLLILLLLPVGLLLAAACLHWQTRRRTRPRGQVPPVPSQDILLVH 235

RESULT 4
US-09-109-100-1
/ Sequence 1, Application US/09109100C
/ Patent No. 6231661
/ GENERAL INFORMATION:
/ APPLICANT: Graddis, Thomas J.
/ APPLICANT: McGrew, Jeffrey T.
/ TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
/ FILE REFERENCE: 03260.0028
/ CURRENT APPLICATION NUMBER: US/09/109,100C
/ CURRENT FILING DATE: 1998-07-02
/ NUMBER OF SEQ ID NOS: 20
/ SOFTWARE: Patent In Ver. 2.1
/ SEQ ID NO 1
/ LENGTH: 235
/ TYPE: PRT
/ ORGANISM: Homo sapiens
/ US-09-109-100-1

Query Match      100.0%; Score 1242; DB 3; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
DB 1 MTLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQGLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPT 180
DB 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPLLILLLLPVGLLLAAACLHWQTRRRTRPRGQVPPVPSQDILLVH 235
DB 181 APQPLLILLLLPVGLLLAAACLHWQTRRRTRPRGQVPPVPSQDILLVH 235

RESULT 5
US-08-669-692-6
/ Sequence 6, Application US/08669692
/ Patent No. 6630143
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/ GENERAL INFORMATION:
/ APPLICANT: Lyman, Stewart D.
/ APPLICANT: Beckmann, M. Patricia
/ TITLE OF INVENTION: Ligands for f1t3/Elk-2 Receptors
/ NUMBER OF SEQUENCES: 8
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Stephen L. Malaska, Immunex Corporation
/ STREET: 51 University Street
/ CITY: Seattle
/ STATE: Washington
/ COUNTRY: US
/ ZIP: 98101
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: Apple Macintosh
/ OPERATING SYSTEM: Macintosh 7.0.1
/ SOFTWARE: Microsoft Word, Version #5.1
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/669,692
/ FILING DATE: 24-JUN-1996
/ CLASSIFICATION: 530
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US/08/162,407
/ FILING DATE: December 3, 1993
/ APPLICATION NUMBER: 08/111,758
/ FILING DATE: August 25, 1993
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: 08/106,463
/ FILING DATE: August 12, 1993
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: 08/068,394
/ FILING DATE: May 24, 1993
/ CLASSIFICATION: 530
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Malaska, Stephen L.
/ REGISTRATION NUMBER: 32,655
/ REFERENCE/DOCKET NUMBER: 2813-C
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (206) 587-0430
/ TELEFAX: (206) 233-0644
/ TELEX: 756822
/ INFORMATION FOR SEQ ID NO: 6:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 235 amino acids
/ TYPE: amino acid
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
/ US-08-669-692-6

Query Match      100.0%; Score 1242; DB 4; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
DB 1 MTLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSYLLQDPVTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQGLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPT 180
DB 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPT 180
QY 181 APQPLLILLLLPVGLLLAAACLHWQTRRRTRPRGQVPPVPSQDILLVH 235
DB 181 APQPLLILLLLPVGLLLAAACLHWQTRRRTRPRGQVPPVPSQDILLVH 235

RESULT 6
US-08-444-626-6
/ Sequence 6, Application US/08444626
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Patent No. 6632424
GENERAL INFORMATION:
APPLICANT: Lyman, Stewart D.
APPLICANT: Beckmann, M. Patricia
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seattle
STATE: Washington
COUNTRY: US
ZIP: 98101
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh 7.0.1
SOFTWARE: Microsoft Word, Version #5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/444,626
FILING DATE: 19-MAY-1995
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/162,407
FILING DATE: 03-DEC-1993
APPLICATION NUMBER: 08/111,758
FILING DATE: August 25, 1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/068,394
FILING DATE: May 24, 1993
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Malaska, Stephen L.
REGISTRATION NUMBER: 32,655
REFERENCE/DOCKET NUMBER: 2813-C
TELEPHONE: (206) 587-0430
TELEFAX: (206) 233-0644
TELEX: 756822
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-444-626-6

Query Match 100.0%; Score 1242; DB 4; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTVLAPANSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDPVTV 60
DB 1 MTVLAPANSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDPVTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEHFVTKCAFQPPPSCL 120
DB 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RVQVNISSLQETSEQLVAKPWITRQNFRCLELQCPDSSITLPPFWSRPLEATAPT 180
DB 121 RVQVNISSLQETSEQLVAKPWITRQNFRCLELQCPDSSITLPPFWSRPLEATAPT 180
QY 181 APQPELLLLLLLVGLLLAAWCLHWORTRRTPRGEQVPPVPSQDILLVHH 235
DB 181 APQPELLLLLLLVGLLLAAWCLHWORTRRTPRGEQVPPVPSQDILLVHH 235

RESULT 7

PCT-US94-05365-6
Sequence 6, Application PC/TUS9405365
GENERAL INFORMATION:
APPLICANT: Lyman, Stewart D.
APPLICANT: Beckmann, M. Patricia
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seattle
STATE: Washington
COUNTRY: US
ZIP: 98101
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/05365
FILING DATE: May 24, 1994
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: -to be assigned-
FILING DATE: May 11, 1994
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/209,502
FILING DATE: March 7, 1994
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/162,407
FILING DATE: December 3, 1993
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/111,758
FILING DATE: August 25, 1993
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/068,394
FILING DATE: May 24, 1993
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Malaska, Stephen L.
REGISTRATION NUMBER: 32,655
REFERENCE/DOCKET NUMBER: 2813-B
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 587-0430
TELEFAX: (206) 233-0644
TELEX: 756822
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US94-05365-6
Query Match 100.0%; Score 1242; DB 5; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTVLAPANSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDPVTV 60
DB 1 MTVLAPANSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDPVTV 60
QY 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMQLLERNVTEHFVTKCAFQPPPSCL 120

Db 61 ASNLQDEELCGGLWRLVLAQRWMLKTVAGSKMOGLLERNVTEHFVTKCAFQPPPSCL 120
QY 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPT 180
Db 121 RFVQTNISRLLOETSEQLVAKPWITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPT 180
QY 181 AQCPPELLLLLLPVGLLLAAWCLHWQTRRTRPRGEGVPPVPSQDLLLLVEH 235
Db 181 AQCPPELLLLLLPVGLLLAAWCLHWQTRRTRPRGEGVPPVPSQDLLLLVEH 235
RESULT 8
US-09-109-100-10
; Sequence 10, Application US/09109100C
; Patent No. 6291661
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT FILING DATE: 1998-07-02
; CURRENT APPLICATION NUMBER: US/09/109,100C
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 10
; LENGTH: 212
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-10
Query Match 90.5%; Score 1124; DB 3; Length 212;
Best Local Similarity 100.0%; Pred. No. 2.6e-105;
Matches 211; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 25 SCTQCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWME 84
Db 2 SCTQCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWME 61
QY 85 RLKTVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPW 144
Db 62 RLKTVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPW 121
QY 145 ITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPTAQPPPLLLLLPVGLLLAAWCLH 204
Db 122 ITRQNFSCRLELQCPDSSSTLPPWSPRPLEATPTAQPPPLLLLLPVGLLLAAWCLH 181
QY 205 LHWQTRRTRPRGEGVPPVPSQDLLLLVEH 235
Db 182 LHWQTRRTRPRGEGVPPVPSQDLLLLVEH 212
RESULT 9
US-09-109-100-18
; Sequence 18, Application US/09109100C
; Patent No. 6291661
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT FILING DATE: 1998-07-02
; CURRENT APPLICATION NUMBER: US/09/109,100C
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 18
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-18
Query Match 89.7%; Score 1114; DB 3; Length 209;
Best Local Similarity 100.0%; Pred. No. 2.6e-104;
Matches 209; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 TODCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWML 86
Db 1 TODCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWML 60
QY 87 KTVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 146
Db 61 KTVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 120
QY 147 RQNFSCRLELQCPDSSSTLPPWSPRPLEATPTAQPPPLLLLLPVGLLLAAWCLH 206
Db 121 RQNFSCRLELQCPDSSSTLPPWSPRPLEATPTAQPPPLLLLLPVGLLLAAWCLH 180
QY 207 WQTRRTRPRGEGVPPVPSQDLLLLVEH 235
Db 181 WQTRRTRPRGEGVPPVPSQDLLLLVEH 209
RESULT 10
US-09-109-100-9
; Sequence 9, Application US/09109100C
; Patent No. 6291661
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT FILING DATE: 1998-07-02
; CURRENT APPLICATION NUMBER: US/09/109,100C
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 9
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-9
Query Match 89.4%; Score 1110; DB 3; Length 209;
Best Local Similarity 99.5%; Pred. No. 6.5e-104;
Matches 208; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 27 TODCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWML 86
Db 1 TODCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWML 60
QY 87 KTVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 146
Db 61 KTVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 120
QY 147 RQNFSCRLELQCPDSSSTLPPWSPRPLEATPTAQPPPLLLLLPVGLLLAAWCLH 206
Db 121 RQNFSCRLELQCPDSSSTLPPWSPRPLEATPTAQPPPLLLLLPVGLLLAAWCLH 180
QY 207 WQTRRTRPRGEGVPPVPSQDLLLLVEH 235
Db 181 WQTRRTRPRGEGVPPVPSQDLLLLVEH 209
RESULT 11
US-09-109-100-12
; Sequence 12, Application US/09109100C
; Patent No. 6291661
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT FILING DATE: 1998-07-02
; CURRENT APPLICATION NUMBER: US/09/109,100C
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 12
; LENGTH: 209

FILE REFERENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 17
LENGTH: 209
TYPE: PRT
ORGANISM: Homo sapiens
US-09-109-100-17

Query Match 89.4%; Score 1110; DB 3; Length 209;
Best Local Similarity 99.5%; Pred. No. 6.5e-104;
Matches 208; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 27 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWML 86
DB 1 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWML 60
QY 87 KTVAGSKMQLLERNVTEHFVTKCAFOPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 146
DB 61 KTVAGSKMQLLERNVTEHFVTKCAFOPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 120
QY 147 RQNFSCLELQCPDSSSTLPPWSPRPLEATAPTAPOPLLLLLLPGVLLLLAAWCLH 206
DB 121 RQNFSCLELQCPDSSSTLPPWSPRPLEATAPTAPOPLLLLLLPGVLLLLAAWCLH 180
QY 207 WQTRRTTRPGEQVPPVPSQDLLLLVEH 235
DB 181 WQTRRTTRPGEQVPPVPSQDLLLLVEH 209

RESULT 14
US-09-109-100-11
Sequence 11, Application US/09109100C
Patent No. 6291661
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 11
LENGTH: 209
TYPE: PRT
ORGANISM: Homo sapiens
US-09-109-100-11

Query Match 89.2%; Score 1108; DB 3; Length 209;
Best Local Similarity 99.3%; Pred. No. 1e-103;
Matches 208; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 27 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWML 86
DB 1 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWML 60
QY 87 KTVAGSKMQLLERNVTEHFVTKCAFOPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 146
DB 61 KTVAGSKMQLLERNVTEHFVTKCAFOPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 120
QY 147 RQNFSCLELQCPDSSSTLPPWSPRPLEATAPTAPOPLLLLLLPGVLLLLAAWCLH 206
DB 121 RQNFSCLELQCPDSSSTLPPWSPRPLEATAPTAPOPLLLLLLPGVLLLLAAWCLH 180
QY 207 WQTRRTTRPGEQVPPVPSQDLLLLVEH 235
DB 181 WQTRRTTRPGEQVPPVPSQDLLLLVEH 209

RESULT 15

TYPE: PRT
ORGANISM: Homo sapiens
US-09-109-100-12

Query Match 89.4%; Score 1110; DB 3; Length 209;
Best Local Similarity 99.5%; Pred. No. 6.5e-104;
Matches 208; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 27 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWML 86
DB 1 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWML 60
QY 87 KTVAGSKMQLLERNVTEHFVTKCAFOPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 146
DB 61 KTVAGSKMQLLERNVTEHFVTKCAFOPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 120
QY 147 RQNFSCLELQCPDSSSTLPPWSPRPLEATAPTAPOPLLLLLLPGVLLLLAAWCLH 206
DB 121 RQNFSCLELQCPDSSSTLPPWSPRPLEATAPTAPOPLLLLLLPGVLLLLAAWCLH 180
QY 207 WQTRRTTRPGEQVPPVPSQDLLLLVEH 235
DB 181 WQTRRTTRPGEQVPPVPSQDLLLLVEH 209

RESULT 12
US-09-109-100-14
Sequence 14, Application US/09109100C
Patent No. 6291661
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 14
LENGTH: 209
TYPE: PRT
ORGANISM: Homo sapiens
US-09-109-100-14

Query Match 89.4%; Score 1110; DB 3; Length 209;
Best Local Similarity 99.5%; Pred. No. 6.5e-104;
Matches 208; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 27 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWML 86
DB 1 TQDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWML 60
QY 87 KTVAGSKMQLLERNVTEHFVTKCAFOPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 146
DB 61 KTVAGSKMQLLERNVTEHFVTKCAFOPPPSCLRFVQTNISRLLOETSEQLVAKPWIT 120
QY 147 RQNFSCLELQCPDSSSTLPPWSPRPLEATAPTAPOPLLLLLLPGVLLLLAAWCLH 206
DB 121 RQNFSCLELQCPDSSSTLPPWSPRPLEATAPTAPOPLLLLLLPGVLLLLAAWCLH 180
QY 207 WQTRRTTRPGEQVPPVPSQDLLLLVEH 235
DB 181 WQTRRTTRPGEQVPPVPSQDLLLLVEH 209

RESULT 13
US-09-109-100-17
Sequence 17, Application US/09109100C
Patent No. 6291661
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE

US-09-109-100-15
; Sequence 15, Application US/09109100C
; Patent No. 6291661
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/109,100C
; CURRENT FILING DATE: 1998-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-15

Query Match 89.2%; Score 1108; DB 3; Length 209;
Best Local Similarity 99.5%; Pred. No. 1e-103;
Matches 208; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Qy 27 TODCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWNERL 86
Db 1 TODCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWNERL 60
Qy 87 KTVAGSKKQGLLERVNTIEHFVTKCAFQPPSCILRFVQTNISRLLOETSEQLVALKEWIT 146
Db 61 KTVAGSKKQGLLERVNTIEHFVTKCAFQPPSCILRFVQTNISRLLOETSEQLVALKEWIT 120
Qy 147 QNFSCRLELOCQDSDSTLPPWSPRPLEATAPTAPQPPPLLLLLLFPVGLLLIAAAWCLH 206
Db 121 QNFSCRLELOCQDSDSTLPPWSPRPLEATAPTAPQPPPLLLLLLFPVGLLLIAAAWCLH 180
Qy 207 WQTRRRTPRGEQVPPVPSQDLLLLVEH 235
Db 181 WQTRRRTPRGEQVPPVPSQDLLLLVEH 209

Search completed: April 8, 2004, 17:09:11
Job time : 22.0734 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 8, 2004, 17:03:02 ; Search time 10.1196 Seconds
(without alignments)
1264.231 Million cell updates/sec

Title: US-08-994-468-6_COPY_28_160
Perfect score: 701
Sequence: 1 QDCSFQSPISDFAVKIRE.....LKPWITRQNSRCLELQCP 133

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues
Total number of hits satisfying chosen parameters: 283366

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR 78:*
1: PIR1:*
2: PIR2:*
3: PIR3:*
4: PIR4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	701	100.0	178	2 I39076	Flt3 ligand altern
2	701	100.0	235	2 I38440	flt3 ligand - huma
3	695	99.1	245	2 S43293	FLT3/FLK2 ligand (
4	508	72.5	220	2 S43291	FLT3/FLK2 ligand (
5	508	72.5	220	2 I58343	flt3 ligand isofor
6	508	72.5	231	2 A49265	flt3/flk-2 ligand
7	78	11.1	205	2 S76666	hypothetical prote
8	77	11.0	872	2 E71852	valine-tRNA ligase
9	75.5	10.8	315	2 F97827	dimethyladenosine
10	75	10.7	297	2 F98815	hypothetical prote
11	74.5	10.6	388	2 C28798	hypothetical prote
12	74.5	10.6	1188	2 C71231	hypothetical prote
13	72.5	10.3	398	2 T52311	isopenicillin N ep
14	72	10.3	362	2 A37783	iodopsin - chicken
15	71.5	10.2	832	2 H72278	alpha-mannosidase
16	71	10.1	341	2 A82129	fatty acid/prospho
17	71	10.1	661	1 TNBE12	74k alpha trans-in
18	71	10.1	663	2 C70838	probable zinc meta
19	70.5	10.1	285	2 AG1535	transport protein
20	70.5	10.1	499	2 T49049	hypothetical prote
21	70.5	10.1	1858	1 A44214	genome polyprotein
22	70	10.0	150	2 B98044	ABC transporter, t
23	70	10.0	553	2 G83866	hypothetical prote
24	69.5	9.9	321	2 T08687	P52IRPK protein ho
25	69.5	9.9	474	2 T19543	hypothetical prote
26	69	9.8	414	2 AE2242	hypothetical prote
27	69	9.8	874	2 A64664	valine-tRNA ligase
28	69	9.8	1011	2 A12046	ABC transporter AT
29	69	9.8	4324	2 T50176	Probable peptide s

30	68.5	9.8	363	2 S75088	probable GTP-bindin
31	68.5	9.8	885	2 B86257	NBS/LRR disease re
32	68	9.7	566	2 S22933	testis-specific pr
33	67.5	9.6	234	2 AF2224	hypothetical prote
34	67.5	9.6	396	2 A95038	glucuronyl hydrola
35	67.5	9.6	396	2 D97908	unsaturated glucur
36	67.5	9.6	497	1 RNPSSN	transcription init
37	67.5	9.6	1308	2 B75198	DNA helicase relat
38	67	9.6	187	2 A45878	hypothetical prote
39	67	9.6	444	2 S31191	tubulin beta-1 cha
40	67	9.6	506	2 A45841	T-complex-associat
41	67	9.6	781	2 AC2086	hypothetical prote
42	67	9.6	1893	2 A56158	eye development pr
43	67	9.6	2126	2 H70621	probable polyketid
44	66.5	9.5	497	2 JQ0338	transcription init
45	66	9.4	364	1 OOHUR	opsin, red-sensiti

ALIGNMENTS

RESULT 1

I39076
Flt3 ligand alternatively spliced isoform - human
C/Species: Homo sapiens (man)
C/Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C/Accession: I39076
R/Lyman, S.D.; Stocking, K.; Davison, B.; Fletcher, F.; Johnson, L.; Escobar, S.
Oncogene 11, 1165-1172, 1995
A/Title: Structural analysis of human and murine flt3 ligand genomic loci.
A/Reference number: I39075; MUID:96032581; PMID:7566977
A/Accession: I39076
A/Status: preliminary; translated from GB/EMBL/DDBJ
A/Molecule type: DNA
A/Residues: 1-178 <RES>
A/Cross-references: EMBL:U29874; NID:g1072036; PIDN:AAA90950.1; PID:g1072038
C/Genetics:
A/Introns: 11/3; 48/3; 66/3; 114/3; 161/1

Query Match 100.0%; Score 701; DB 2; Length 178;
Best Local Similarity 100.0%; Pred. No. 9.8e-66;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 QDCSFQSPISDFAVKIRELSDYLLQDPVTVASNLQDEELCGGLRWLVLAQRMWERLK 60
Db 28 QDCSFQSPISDFAVKIRELSDYLLQDPVTVASNLQDEELCGGLRWLVLAQRMWERLK 87
Qy 61 TVAGSKMQGLLERVNTTEIHFVTKCAFQPPSPCLRFVQTNISRLLOSTSEQLVALKPWITR 120
Db 88 TVAGSKMQGLLERVNTTEIHFVTKCAFQPPSPCLRFVQTNISRLLOSTSEQLVALKPWITR 147
Qy 121 ONFSRCLELQCP 133
Db 148 ONFSRCLELQCP 160

RESULT 2

I38440
flt3 ligand - human
C/Species: Homo sapiens (man)
C/Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 01-Dec-2000
C/Accession: I38440; I39075; S43292
R/Lyman, S.D.; James, L.; Johnson, L.; Braseel, K.; de Vries, P.; Escobar, S.S.; Downey,
Blood 83, 2795-2801, 1994
A/Title: Cloning of the human homologue of the murine flt3 ligand: a growth factor for e
A/Reference number: I38440; MUID:94235842; PMID:8180375
A/Accession: I38440
A/Status: preliminary; translated from GB/EMBL/DDBJ
A/Molecule type: mRNA
A/Residues: 1-235 <RES>
A/Cross-references: EMBL:U03858; NID:G494978; PIDN:AAA19825.1; PID:G494979
R/Lyman, S.D.; Stocking, K.; Davison, B.; Fletcher, F.; Johnson, L.; Escobar, S.
Oncogene 11, 1165-1172, 1995

A:Title: Structural analysis of human and murine flt3 ligand genomic loci.
A:Reference number: I39075; MUID:96032581; PMID:7566977
A:Accession: I39075
A:Status: preliminary; translated from GB/EMBL/DDB3
A:Molecule type: DNA
A:Residues: 1-235 <RE2>
A:Cross-references: EMBL:U29874; NID:g1072036; PID:AAA90949.1; PID:g1072037
R:Hannum, C.; Culpepper, J.; Campbell, J.; Zurawski, S.; Bazan, J.F.; Kiehl, A.; Muench, M.; Kellner, G.; Namikawa, R.; Rennick, D.; Roncarolo, M.G.; Zlotnik, A.
Nature 368, 643-648, 1994
A:Title: Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoietic cells.
A:Reference number: S43290; MUID:94195428; PMID:8145851
A:Accession: S43290
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-245 <HAN>
A:Cross-references: GB:U04806; NID:9483844; PID:AAA17999.1; PID:9483845
A:Note: the authors translated the codon AGT for residue 25 as Met.
C:Genetics:
A:Introns: 11/3; 48/3; 66/3; 114/3; 161/1; 220/3
Query Match 100.0%; Score 701; DB 2; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.4e-65;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 QDCSFQHSPISSDPAVKIRELSYLLQDYPTVASNLQDEELCGGLRWLVLAQRWVERLK 60
DB 28 QDCSFQHSPISSDPAVKIRELSYLLQDYPTVASNLQDEELCGGLRWLVLAQRWVERLK 87
QY 61 TVAGSKMQLLERNVTEIHFTVKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWTR 120
DB 88 TVAGSKMQLLERNVTEIHFTVKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWTR 147
QY 121 QNFSRCLELOCOQ 133
DB 148 QNFSRCLELOCOQ 160
RESULT 3
S43293
FLT3/FLK2 ligand (clone S109) - human
C:Species: Homo sapiens (man)
C:Date: 20-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
A:Accession: S43293
R:Hannum, C.; Culpepper, J.; Campbell, J.; Zurawski, S.; Bazan, J.F.; Kiehl, A.; Muench, M.; Kellner, G.; Namikawa, R.; Rennick, D.; Roncarolo, M.G.; Zlotnik, A.
Nature 368, 643-648, 1994
A:Title: Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoietic cells.
A:Reference number: S43290; MUID:94195428; PMID:8145851
A:Accession: S43293
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-245 <HAN>
A:Note: the authors translated the codon AGT for residue 25 as Met
Query Match 99.1%; Score 695; DB 2; Length 245;
Best Local Similarity 99.2%; Pred. No. 6.1e-65;
Matches 132; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 QDCSFQHSPISSDPAVKIRELSYLLQDYPTVASNLQDEELCGGLRWLVLAQRWVERLK 60
DB 28 QDCSFQHSPISSDPAVKIRELSYLLQDYPTVASNLQDEELCGGLRWLVLAQRWVERLK 87
QY 61 TVAGSKMQLLERNVTEIHFTVKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWTR 120
DB 88 TVAGSKMQLLERNVTEIHFTVKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWTR 147
QY 121 QNFSRCLELOCOQ 133
DB 148 QNFSRCLELOCOQ 160
RESULT 4

S43291
FLT3/FLK2 ligand (clone T118) - mouse
C:Species: Mus musculus (house mouse)
C:Date: 20-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
A:Accession: S43291
R:Hannum, C.; Culpepper, J.; Campbell, J.; Zurawski, S.; Bazan, J.F.; Kiehl, A.; Muench, M.; Kellner, G.; Namikawa, R.; Rennick, D.; Roncarolo, M.G.; Zlotnik, A.
Nature 368, 643-648, 1994
A:Title: Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoietic cells.
A:Reference number: S43290; MUID:94195428; PMID:8145851
A:Accession: S43291
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-220 <HAN>
Query Match 72.5%; Score 508; DB 2; Length 220;
Best Local Similarity 73.9%; Pred. No. 1.8e-45;
Matches 99; Conservative 12; Mismatches 21; Indels 2; Gaps 1;
QY 2 DCSFQHSPISSDPAVKIRELSYLLQDYPTVASNLQDEELCGGLRWLVLAQRWVERLK 61
DB 30 DCSFQHSPISSDPAVKIRELSYLLQDYPTVASNLQDEELCGGLRWLVLAQRWVERLK 89
QY 62 VAGSKMQLLERNVTEIHFTVKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWTR 120
DB 90 VAGSKMQLLERNVTEIHFTVKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWTR 149
QY 121 QNFSRCLELOCOQ 133
DB 150 QNFSRCLELOCOQ 163
RESULT 5
I58343
flt3 ligand isoform 5H - mouse
C:Species: Mus sp. (mouse)
C:Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 05-Nov-1999
R:Lyman, S.D.; James, L.; Escobar, S.; Downey, H.; de Vries, P.; Brasel, K.; Stocking, I.
Oncogene 10, 143-157, 1995
A:Title: Identification of soluble and membrane-bound isoforms of the murine flt3 ligand.
A:Reference number: I58343; MUID:95124710; PMID:7824267
A:Accession: I58343
A:Status: preliminary; translated from GB/EMBL/DDB3
A:Molecule type: mRNA
A:Residues: 1-220 <RES>
A:Cross-references: GB:S76459; NID:g913479; PID:AA333069.1; PID:g913480
Query Match 72.5%; Score 508; DB 2; Length 220;
Best Local Similarity 73.9%; Pred. No. 1.8e-45;
Matches 99; Conservative 12; Mismatches 21; Indels 2; Gaps 1;
QY 2 DCSFQHSPISSDPAVKIRELSYLLQDYPTVASNLQDEELCGGLRWLVLAQRWVERLK 61
DB 30 DCSFQHSPISSDPAVKIRELSYLLQDYPTVASNLQDEELCGGLRWLVLAQRWVERLK 89
QY 62 VAGSKMQLLERNVTEIHFTVKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWTR 120
DB 90 VAGSKMQLLERNVTEIHFTVKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWTR 149
QY 121 QNFSRCLELOCOQ 133
DB 150 QNFSRCLELOCOQ 163
RESULT 6
A49265
flt3/flk-2 ligand precursor - mouse
C:Species: Mus musculus (house mouse)
C:Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 08-Oct-1999
R:Lyman, S.D.; James, L.; Vanden Bos, T.; de Vries, P.; Brasel, K.; Gliniak, B.; Holling
D.; Williams, D.E.; Beckmann, M.P.

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OM protein - protein search, using sw model

Run on: April 8, 2004, 16:59:26 ; Search time 7.22826 Seconds

(without alignments)
958.091 Million cell updates/sec

Title: US-08-994-468-6_COPY_28_160

Perfect score: 701

Sequence: 1 QDCSFQSPSSDFAVKIRE.....LKPMWTRQNSRCLELQCP 133

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	DB ID	Description
1	701	100.0	235	1 FL3L HUMAN	P49771 homo sapien
2	508	72.5	232	1 FL3L MOUSE	P49772 mus musculus
3	78	11.1	205	1 CY8R SYNY3	Q55854 synchocyst
4	77	11.0	872	1 SYR HELPU	Q92661 helicobacte
5	75.5	10.8	301	1 KSGA RICCN	Q92670 rickettsia
6	75	10.7	294	1 KSGA STAAM	Q93291 staphylococ
7	75	10.7	297	1 KSGA STAAN	Q99WB0 staphylococ
8	74.5	10.6	388	1 TRAG BURCE	P24575 burkholderi
9	73	10.4	552	1 P52K MOUSE	Q9CUX1 mus musculus
10	72.5	10.3	397	1 CERD STRCL	P18549 streptomyc
11	72	10.3	362	1 OPRR CHICK	P22329 gallus gali
12	71	10.1	341	1 PLSX VIBCH	Q9KQH4 vibrio chol
13	71	10.1	661	1 AT12 VZVD	P09264 varicella-z
14	70.5	10.1	625	1 GLMS SYNEL	Q8DJ16 s glucosami
15	70.5	10.1	1858	1 VGNE CPSMV	P36312 cowpea seve
16	69.5	9.9	761	1 P52K HUMAN	Q43422 homo sapien
17	69.5	9.9	1569	1 GLI3 XENLA	Q91660 xenopus lae
18	69	9.8	874	1 SYR HELPU	P56000 helicobacte
19	68.5	9.8	426	1 B53B HUMAN	Q94805 homo sapien
20	68.5	9.8	426	1 B53B MOUSE	Q99MR0 mus musculus
21	68	9.7	566	1 TS13 MOUSE	Q01755 mus musculus
22	67.5	9.6	267	1 KSGA BACTN	Q8A0H8 b dimethyla
23	67	9.6	446	1 TBTI TRIVI	P31864 trichoderma
24	66.5	9.5	440	1 DGTI VIBPA	Q87173 vibrio para
25	66.5	9.5	461	1 TM15 PIG	Q9TSW0 sus scrofa
26	66.5	9.5	497	1 RP54 PSEPK	P15591 pseudomonas
27	66.5	9.5	498	1 MEFA MOUSE	Q60929 mus musculus
28	66	9.4	364	1 OPRR HUMAN	P04000 homo sapien
29	66	9.4	439	1 VPR EPMU	Q01259 bacterioph
30	66	9.4	805	1 KIP3 YEAST	P53086 saccharomyc
31	65.5	9.3	450	1 ROMA RALSO	Q8Y035 raistonia s
32	65.5	9.3	467	1 YR72 ECOLI	P21312 escherichia
33	65.5	9.3	566	1 CRTI ORISA	Q9ZTN9 oryza sativ

34 65.5 9.3 571 1 CRTI MAIZE
35 65.5 9.3 772 1 ELAL HUMAN
36 65 9.3 168 1 VG48 HAEIN
37 65 9.3 610 1 YK65 CABEL
38 64.5 9.2 228 1 UNG YERPE
39 64.5 9.2 265 1 KSGA SYNEL
40 64.5 9.2 536 1 CCA5 DROME
41 64.5 9.2 626 1 HTPG ACTAC
42 64.5 9.2 957 1 SEGA MYCSM
43 64.5 9.2 1199 1 Y173 HUMAN
44 64.5 9.2 2231 1 SENI YEAST
45 64.5 9.2 4590 1 FATH HUMAN

ALIGNMENTS

RESULT 1
FL3L_HUMAN
ID FL3L_HUMAN STANDARD; PRT; 235 AA.
AC P49771;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE SL cytokine precursor (Fms-related tyrosine kinase 3 ligand) (Flt3 ligand) (Flt3L).
GN FLT3LG.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP MEDLINE=94195428; PubMed=8145951;
RX Hannum C., Culpepper J., Campbell D., McClanahan T., Zurawski S., Bazan J.P., Kastelein R., Hudak S., Wagner J., Mattson J., Luh J., Duda G., Martins N., Peterson D., Menon S., Shanafelt A., Muench M., Kelnar G., Namikawa R., Rennick D., Roncarolo M.G., Zlotnik A., Kosnet O., Dubreuil P., Birnbaum D., Lee F.;
RT "Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoietic stem cells and is encoded by variant RNAs.";
RL Nature 368:643-648(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=94259842; PubMed=8180375;
RX Lyman S.D., James L., Johnson L., Brasel K., de Vries P., Beckmann M.P., McKenna H.J.;
RT "Cloning of the human homologue of the murine flt3 ligand: a growth factor for early hematopoietic progenitor cells.";
RL Blood 83:2795-2801(1994).
RN [3]
RP SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.
RX MEDLINE=96032581; PubMed=7566977;
RX Lyman S.D., Stocking K., Davison B., Fletcher F., Johnson L., Escobar S.;
RT "Structural analysis of human and murine flt3 ligand genomic loci.";
RL Oncogene 11:1165-1172(1995).
RN [4]
RP X-RAY CRYSTALLOGRAPHY (2.2 ANGSTROMS).
RX MEDLINE=20343011; PubMed=10881197;
RX Savvides S.N., Boone T., Karplus P.A.;
RT "Flt3 ligand structure and unexpected commonalities of helical bundles and cystine knots.";
RL Nat. Struct. Biol. 7:486-491(2000).
CC -!- FUNCTION: Stimulates the proliferation of early hematopoietic cells. Synergizes well with a number of other colony stimulating factors and interleukins.
CC -!- SUBUNIT: Homodimer (isoform 2).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (isoform 1). Secreted (isoform 2).
CC -!- ALTERNATIVE PRODUCTS:
CC Event-Alternative splicing; Named isoforms=2;
CC Name=1; Synonyms=Membrane-bound;

P49086 zea mays (m
Q14241 homo sapien
P44241 haemophilus
P34344 caenorhabdi
Q82d85 yersinia pe
P59157 s dimethyla
Q9ve01 drosophila
P54649 actinobacil
P71533 mycobacteri
Q14879 homo sapien
Q00416 saccharomyc
Q14517 homo sapien

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CC CC      IsoId=p49771-1; Sequence=Displayed;
CC CC      Name=2; Synonyms=Soluble;
CC CC      IsoId=p49771-2; Sequence=VSP_004251, VSP_004252;
CC CC
CC CC      This SWISS-PROT entry is copyright. It is produced through a collaboration
CC CC      between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC CC      the European Bioinformatics Institute. There are no restrictions on its
CC CC      use by non-profit institutions as long as its content is in no way
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CC CC      or send an email to license@isb-sib.ch).
CC CC
CC CC      -----
CC CC      EMBL; U04806; AAA17999.1; -
CC CC      EMBL; U03858; AAA19825.1; -
CC CC      EMBL; U29874; AAA90949.1; -
CC CC      EMBL; U29874; AAA90950.1; -
CC CC      PIR; I38440; I38440.
CC CC      PIR; I39076; I39076.
CC CC      PDB; 1ETE; 09-JUN-00.
CC CC      Genew; HGNC:3766; FLT3LG.
CC CC      MIN; 60007; -.
CC CC      GO; GO:0005625; C:soluble fraction; TAS.
CC CC      GO; GO:0005102; F:receptor binding; TAS.
CC CC      GO; GO:0008284; P:positive regulation of cell proliferation; TAS.
CC CC      GO; GO:0007185; P:signal transduction; TAS.
CC CC      InterPro; IPR004213; Flt3_lig.
CC CC      Pfam; PF02947; Flt3_lig; I.
CC CC      Cytokine; Glycoprotein; Transmembrane; Alternative splicing; Signal;
CC CC      3D-structure.
CC CC      FT SIGNAL 1 26
CC CC      FT CHAIN 27 235
CC CC      FT DOMAIN 27 184
CC CC      FT TRANSMEM 185 205
CC CC      FT DOMAIN 206 235
CC CC      FT DISULFID 30 111
CC CC      FT DISULFID 70 153
CC CC      FT DISULFID 119 158
CC CC      FT CARBOHYD 126 126
CC CC      FT CARBOHYD 149 149
CC CC      FT VARSPPLIC 161 178
CC CC
CC CC      FT VARSPPLIC 179 235
CC CC
CC CC      FT CONFLICT 72 72
CC CC      FT STRAND 31 31
CC CC      FT TURN 39 40
CC CC      FT HELIX 41 49
CC CC      FT TURN 50 51
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CC CC      FT HELIX 92 104
CC CC      FT TURN 106 110
CC CC      FT HELIX 118 119
CC CC      FT STRAND 122 126
CC CC      FT HELIX 127 141
CC CC      FT TURN 142 147
CC CC      FT STRAND 149 149
CC CC      FT HELIX 151 153
CC CC      FT STRAND 158 158
CC CC      FT SEQUENCE 235 AA; 26416 MW; 73B95BF693B4CECF CRC64;
CC CC
CC CC      Query Match 100.0%; Score 701; DB 1; Length 235;
CC CC      Best Local Similarity 100.0%; Pred. No. 8.1e-66;
CC CC      Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
CC CC
CC CC      1 QDCSFQHSPISSDFAVKIRELSVLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 60
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CC CC      28 QDCSFQHSPISSDFAVKIRELSVLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 87
CC CC
CC CC      61 TVAGSKMGLERVNTTEHFVTKCAFQPPSCLPVQTNISRLLOETSEQLVALKPWITR 120
CC CC      88 TVAGSKMGLERVNTTEHFVTKCAFQPPSCLPVQTNISRLLOETSEQLVALKPWITR 147
CC CC
CC CC      121 QNFSCLELQCOQ 133
CC CC      148 QNFSCLELQCOQ 160
CC CC
CC CC      RESULT 2
CC CC      FL3L MOUSE
CC CC      ID FL3L MOUSE STANDARD; PRT; 232 AA.
CC CC      AC P49772; Q64085;
CC CC      DT 01-OCT-1996 (Rel. 34, Created)
CC CC      DT 01-OCT-1996 (Rel. 34, Last sequence update)
CC CC      DT 10-OCT-2003 (Rel. 42, Last annotation update)
CC CC      DE SL cytokine precursor (fms-related tyrosine kinase 3 ligand) (Flt3
CC CC      ligand) (Flt3L).
CC CC      GN FLT3LG OR FLT3L.
CC CC      OS Mus musculus (Mouse).
CC CC      OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
CC CC      OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
CC CC      OX NCBI_TaxID=10090;
CC CC      RN [1]
CC CC      RP SEQUENCE FROM N.A.
CC CC      RX MEDLINE=94195428; PubMed=8145851;
CC CC      RA Hannum C., Culpepper J., Campbell D., McClaranhan T., Zurawski S.,
CC CC      Baza J.F., Kastelein R., Hudak S., Wagner J., Mattson J., Luh J.,
CC CC      Duda G., Martina N., Peterson D., Menon S., Shanafelt A.,
CC CC      Muench M., Kainer G., Namikawa R., Rennick D., Roncarolo M.G.,
CC CC      Zlotnik A., Rosnet O., Dubreuil P., Birnbaum D., Lee F.;
CC CC      RT "Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of
CC CC      RT haematopoietic stem cells and is encoded by variant RNAs.";
CC CC      RL Nature 368:643-648(1994).
CC CC      RN [2]
CC CC      RP SEQUENCE FROM N.A.
CC CC      RC STRAIN=SJL/J;
CC CC      RX MEDLINE=94084791; PubMed=7505204;
CC CC      RA Lyman S.D., James L., Vanden Bos T., Devries P., Brasel K.,
CC CC      Gliniak B., Hollingsworth L.T., Picha K.S., McKenna H.J.,
CC CC      Splet R.R., Fletcher F.A., Maraskovsky E., Farrah T.,
CC CC      Foxworth D., Williams D.E., Beckmann M.P.;
CC CC      RT "Molecular cloning of a ligand for the flt3/flk-2 tyrosine kinase
CC CC      RT receptor: a proliferative factor for primitive hematopoietic cells.";
CC CC      RL Cell 75:1157-1167(1993).
CC CC      RN [3]
CC CC      RP SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.
CC CC      RX MEDLINE=96032581; PubMed=7566977;
CC CC      RA Lyman S.D., Stocking K., Davison B., Fletcher F., Johnson L.,
CC CC      Escobar S.;
CC CC      RT "Structural analysis of human and murine flt3 ligand genomic loci.";
CC CC      RL Oncogene 11:1165-1172(1995).
CC CC      RN [4]
CC CC      RP SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.
CC CC      RX MEDLINE=95124710; PubMed=7824267;
CC CC      RA Lyman S.D., James L., Escobar S., Downey H., de Vries P.,
CC CC      Brasel K., Stocking K., Beckmann M.P., Copeland N.G.,
CC CC      Cleveland L.S.;
CC CC      RT "Identification of soluble and membrane-bound isoforms of the murine
CC CC      RT flt3 ligand generated by alternative splicing of mRNAs.";
CC CC      RL Oncogene 10:149-157(1995).
CC CC      RN [5]
CC CC      RP SEQUENCE FROM N.A.
CC CC      RA McClanahan T., Culpepper J., Campbell D., Wagner J.,
CC CC      Franz-Bacon K., Mattson J., Tsai S., Luh J., Guimares M.J.,
CC CC      Mattei M.-G., Rosnet O., Birnbaum D., Hannum C.;
CC CC      RL Submitted (Apr-1996) to the EMBL/GenBank/DBJ databases.
CC CC      CC -!- FUNCTION: Stimulates the proliferation of early hematopoietic
CC CC      cells. Synergizes well with a number of other colony stimulating
CC CC      factors and interleukins.
```

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OM protein - protein search, using sw model

Run on: April 8, 2004, 17:02:32 ; Search time 26.0217 Seconds
(without alignments)
1612.649 Million cell updates/sec

Title: US-08-994-468-6_COPY_28_160

Perfect score: 701

Sequence: 1 QDCSFQHSPISSDFAVKIRE.....LKFWITRONFSRCLSLQCOQ 133

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters: 1017041

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

- SPTREMBL_25:*
- 1: sp_archaea:*
 - 2: sp_bacteria:*
 - 3: sp_fungi:*
 - 4: sp_human:*
 - 5: sp_invertebrate:*
 - 6: sp_mammal:*
 - 7: sp_mhc:*
 - 8: sp_organelle:*
 - 9: sp_phase:*
 - 10: sp_plant:*
 - 11: sp_rodent:*
 - 12: sp_virus:*
 - 13: sp_vertebrate:*
 - 14: sp_unclassified:*
 - 15: sp_virus:*
 - 16: sp_bactexiap:*
 - 17: sp_archaeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	683	97.4	236	6 Q86523	Q86523 papio cynoc
2	581	82.9	291	6 Q9M2U9	Q9mzu9 felis silve
3	581	82.9	294	6 Q9M2V0	Q9mzv0 canis famil
4	569	81.2	292	6 Q9GXE0	Q9gxe0 bos taurus
5	569	81.2	292	6 Q8WYV1	Q8wv1 bos taurus
6	508	72.5	172	11 Q61104	Q61104 mus musculu
7	481	68.6	169	11 Q8VCH4	Q8vch4 mus musculu
8	475	67.8	274	6 Q9GKD9	Q9gkd9 bos taurus
9	276	39.4	54	4 Q7Z6N5	Q7z6n5 homo sapien
10	79	11.3	497	13 Q80311	Q80311 brachydanio
11	79	11.3	1262	10 Q84KC6	Q84kc6 hordem vul
12	78	11.1	301	16 Q7WEM8	Q7wem8 bordetella
13	78	11.1	301	16 Q7W3A9	Q7w3a9 bordetella
14	78	11.1	301	16 Q7VU45	Q7vu45 bordetella
15	77.5	11.1	356	2 Q8KR32	Q8kr32 yersinia ps
16	77	11.0	1379	4 Q9P2D0	Q9p2d0 homo sapien

17	74.5	10.6	399	17	Q8PZ07	Q8p207 methanearc
18	74.5	10.6	505	5	Q86BP3	Q86bp3 drosophila
19	74.5	10.6	560	5	Q9VI58	Q9vi58 drosophila
20	74.5	10.6	990	5	Q8CHM7	Q8chm7 dictyosteli
21	74.5	10.6	1188	17	Q57849	Q57849 pyrococcus
22	74	10.6	966	5	Q44066	Q44066 paraurostyl
23	74	10.6	1020	5	Q961A9	Q961a9 drosophila
24	74	10.6	1154	5	Q9VCW3	Q9vcw3 drosophila
25	74	10.6	1200	5	Q86PB8	Q86pb8 drosophila
26	73.5	10.5	506	16	Q83CR1	Q83cr1 coxiella bu
27	73	10.4	359	13	Q9W771	Q9w771 columba liv
28	73	10.4	758	11	Q80Y58	Q80y58 mus musculu
29	72.5	10.3	646	10	Q7XWT3	Q7xwt3 oryza sativ
30	72	10.3	2627	4	Q99973	Q99973 homo sapien
31	71.5	10.2	536	15	Q91E55	Q91ee5 human immun
32	71.5	10.2	832	16	Q9XOV8	Q9xov8 thermotoga
33	71	10.1	431	12	Q9DW69	Q9dw69 rat cytoleg
34	71	10.1	561	10	Q81634	Q81634 elaeis olei
35	71	10.1	663	16	Q53649	Q53649 mycobacteri
36	71	10.1	663	16	Q7U2L2	Q7u2l2 mycobacteri
37	71	10.1	1085	10	Q9PFS5	Q9ffe5 arabidopsis
38	70.5	10.1	285	16	Q92DJ0	Q92dj0 listeria in
39	70.5	10.1	490	10	Q8GKX5	Q8gx05 arabidopsis
40	70.5	10.1	499	10	Q9LXZ2	Q9lxx2 arabidopsis
41	70	10.0	150	16	Q8DP35	Q8dp35 streptococc
42	70	10.0	298	16	Q7VE54	Q7ves4 prochloroco
43	70	10.0	371	2	Q9F5P9	Q9f5p9 ectothiorho
44	70	10.0	438	16	Q8DC67	Q8dc67 vibrio vuln
45	70	10.0	553	16	Q9KC39	Q9kc39 bacillus ha

ALIGNMENTS

RESULT 1

Q86523 PRELIMINARY; PRT; 236 AA.

AC Q86523;
DT 01-JUN-2003 (TREMBLrel. 24, Created)
DT 01-JUN-2003 (TREMBLrel. 24, Last sequence update)
DT 01-OCT-2003 (TREMBLrel. 25, Last annotation update)
DE FLT3 ligand.
OS Papio cynocephalus x Papio anubis.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecinae; Papio.
OX NCBI_TaxID=208510;
RN [1]
RP SEQUENCE FROM N.A.
RA Kalina T., Storek J.;
RT "T-cell reconstitution after autologous CD34 cell transplantation in
RT monkeys";
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY226585; AA072538.1; -
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005125; F:cytokine activity; IEA.
DR InterPro; IPR004213; FIt3_lig.
DR Pfam; PF02947; fIt3_lig; I.
SQ SEQUENCE 236 AA; 26591 MW; 740F33A6A6DC2163 CRC64;

Query Match 97.4%; Score 683; DB 6; Length 236;
Best Local Similarity 97.4%; Pred. No. 5.9e-69;
Matches 130; Conservative 3; Indels 0; Gaps 0;

QY	1	QDCSFQHSPISSDFAVKIRELSYLLQDPYTVVSNLQDEELCGGLWELVLAQSWMLK	60
DB	28	QDCSFQHSPISSDFAVKIRELSYLLQDPYTVVPSNLQDEELCGALWRLVLAQSWMLK	87
QY	61	TVASGKMGLLERVNTEHFVTKAFQPPSPCLRFVQTNISRLQETSEQLVLPKMITR	120
DB	88	TVASGKMGLLERVNTEHFVTKAFQPPSPCLRFVQTNISRLQETSEQLVLPKMITR	147
QY	121	QNFGRCLQLQCOQ	133

Db 148 QNFGCLELQCP 160

|||||

RESULT 2

Q9MZU9 PRELIMINARY; PRT; 291 AA.

AC Q9MZU9

DT 01-OCT-2000 (TREMELrel. 15, Created)

DT 01-OCT-2000 (TREMELrel. 15, Last sequence update)

DT 01-JUN-2003 (TREMELrel. 24, Last annotation update)

DE Flt3 ligand.

OS Felis silvestris catus (Cat).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.

OX NCBI_TaxID=9685;

RN [1]

RP SEQUENCE FROM N.A.

EX MEDLINE=20359731; PubMed=10902925;

RA Yang S., Sim G.K.;

RT "Molecular cloning of canine and feline flt3 ligand reveals high degree of similarity to the human and mouse homologue but uniquely long cytoplasmic domain.";

RT DNA Seq. 11:163-166(2000).

RL EMBL; AF155149; AAF87089.1; -.

DR HSSP; P49771; 1ETE.

DR GO; GO:0016020; C:membrane; IEA.

DR GO; GO:0005125; F:cytokine activity; IEA.

DR InterPro; IPR004213; Flt3_lig.

DR Pfam; PF02947; flt3_lig; 1.

SQ SEQUENCE 291 AA; 32459 MW; 8F85A10A5EA0DC6 CRC64;

Query Match 82.9%; Score 581; DB 6; Length 291;

Best Local Similarity 84.1%; Pred. No. 2.6e-57;

Matches 111; Conservative 5; Mismatches 16; Indels 0; Gaps 0;

Qy 2 DCSFQHSPISSDFAVKIRELSYLLQDPYPTVASNLQDEELCGGLRWLVLAQRWMLRKT 61

Db 29 DCSFHSPISTFVKTKIRKLSYLLQDPYPTVASNLQDEELCGGLRWLVLAQRWMLRKA 88

Qy 62 VAGSQVQGLLVRVTEIHFTVKAFQPPSCILRFVQTNISRLLOETSEQLVAKPWITRQ 121

Db 89 VAGSQVQGLLVRVTEIHFTVKAFQPPSCILRFVQTNISRLLOETSEQLVAKPWITR 148

Qy 122 NFSCLELQCP 133

Db 149 NFSCLELQCP 160

RESULT 3

Q9MZV0 PRELIMINARY; PRT; 294 AA.

AC Q9MZV0

DT 01-OCT-2000 (TREMELrel. 15, Created)

DT 01-OCT-2000 (TREMELrel. 15, Last sequence update)

DT 01-JUN-2003 (TREMELrel. 24, Last annotation update)

DE Flt3 ligand.

OS Canis familiaris (Dog).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

OX NCBI_TaxID=9615;

RN [1]

RP SEQUENCE FROM N.A.

EX MEDLINE=20358731; PubMed=10902925;

RA Yang S., Sim G.K.;

RT "Molecular cloning of canine and feline flt3 ligand reveals high degree of similarity to the human and mouse homologue but uniquely long cytoplasmic domain.";

RT DNA Seq. 11:163-166(2000).

RL EMBL; AF155148; AAF87088.1; -.

DR HSSP; P49771; 1ETE.

DR GO; GO:0016020; C:membrane; IEA.

DR GO; GO:0005125; F:cytokine activity; IEA.

SQ SEQUENCE 292 AA; 32390 MW; D68B9ED79221202D CRC64;

Query Match 81.2%; Score 569; DB 6; Length 292;

Best Local Similarity 81.1%; Pred. No. 6e-56;

Matches 107; Conservative 10; Mismatches 15; Indels 0; Gaps 0;

Qy 2 DCSFQHSPISSDFAVKIRELSYLLQDPYPTVASNLQDEELCGGLRWLVLAQRWMLRKT 61

Db 30 DCSFHSPISTFVKTKIRKLSYLLQDPYPTVASNLQDEELCGGLRWLVLAQRWMLRKT 89

Qy 62 VAGSQVQGLLVRVTEIHFTVKAFQPPSCILRFVQTNISRLLOETSEQLVAKPWITRQ 121

Db 90 VAGSEVKKLELDVTEIHFTVKAFQPPSCILRFVQTNISRLLOETSEQLVAKPWITR 149

Qy 122 NFSCLELQCP 133

Db 150 NFSCLELQCP 161

RESULT 5

Q8WNW1 PRELIMINARY; PRT; 292 AA.

AC Q8WNW1

DT 01-NAR-2002 (TREMELrel. 20, Created)

DT 01-NAR-2002 (TREMELrel. 20, Last sequence update)

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 9, 2004, 07:33:12 ; Search time 55 Seconds
(without alignments)
683.251 Million cell updates/sec

Title: US-08-994-468-6_COPY_28_160
Perfect score: 701
Sequence: 1 QDCSFQHSPISSDFAVKIRE.....LKPWTRQNFRCLELQCP 133

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1585107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 70

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%
Maximum Match 100%
Listing first 250 summaries

Database : A_Geneseq_29Jan04.*
1: Geneseq1980s.*
2: Geneseq1990s.*
3: Geneseq2000s.*
4: Geneseq2001s.*
5: Geneseq2002s.*
6: Geneseq2003as.*
7: Geneseq2003bs.*
8: Geneseq2004s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	701	100.0	135	2 AAW77910	AAW77910 Human flt
2	701	100.0	135	2 AAW77912	AAW77912 Human flt
3	701	100.0	135	2 AAW69034	AAW69034 Human flt
4	701	100.0	135	2 AAW69036	AAW69036 Human flt
5	701	100.0	139	2 AAW77782	AAW77782 Human flt
6	701	100.0	139	2 AAW69006	AAW69006 Human flt
7	701	100.0	140	2 AAW77911	AAW77911 Human flt
8	701	100.0	140	2 AAW77913	AAW77913 Human flt
9	701	100.0	140	2 AAW77908	AAW77908 Human flt
10	701	100.0	140	2 AAW69032	AAW69032 Human flt
11	701	100.0	140	2 AAW69035	AAW69035 Human flt
12	701	100.0	140	2 AAW69037	AAW69037 Human flt
13	701	100.0	143	2 AAW77926	AAW77926 Flt3 liga
14	701	100.0	143	2 AAW69050	AAW69050 Human flt
15	701	100.0	144	2 AAW77928	AAW77928 Flt3 liga
16	701	100.0	144	2 AAW69052	AAW69052 Human flt
17	701	100.0	145	2 AAW77925	AAW77925 Flt3 liga
18	701	100.0	145	2 AAW69049	AAW69049 Human flt
19	701	100.0	149	2 AAW77927	AAW77927 Flt3 liga
20	701	100.0	149	2 AAW69051	AAW69051 Human flt
21	701	100.0	150	2 AAW77930	AAW77930 Flt3 liga
22	701	100.0	150	2 AAW69054	AAW69054 Human flt
23	701	100.0	153	2 AAW77929	AAW77929 Flt3 liga
24	701	100.0	153	2 AAW69053	AAW69053 Human flt
25	701	100.0	156	6 ABP72857	ABP72857 Human flt

26	701	100.0	178	4 AAB20193	AAB20193 Human flt
27	701	100.0	209	2 AAW69007	Aaw69007 Human flt
28	701	100.0	209	3 AAY69720	Aay69720 Mature wi
29	701	100.0	212	3 AAY69721	Aay69721 Human flt
30	701	100.0	235	2 AAR67541	Aar67541 Human flt
31	701	100.0	235	2 AAW67769	Aaw67769 Human flt
32	701	100.0	235	3 AAY69719	Aay69719 Full leng
33	701	100.0	235	4 AAB20192	Abb20192 Human flt
34	701	100.0	235	5 ABB08129	Abb08129 Human flt
35	701	100.0	235	5 ABG31626	Abg31626 Human flt
36	701	100.0	235	5 AAO19091	Aao19091 C neoform
37	701	100.0	235	6 AAG79949	Ag79949 Secreted
38	701	100.0	235	6 ABG74239	Abg74239 Human flt
39	701	100.0	235	7 ADD22874	Add22874 Human flt
40	701	100.0	235	7 ADD80915	Add80915 Amino aci
41	701	100.0	235	7 ADE48117	Ade48117 Human flt
42	701	100.0	235	7 ADE80752	Ade80752 Microsate
43	701	100.0	281	2 AAW83302	AAW83302 Human flt
44	701	100.0	281	2 AAW83298	AAW83298 Human flt
45	701	100.0	281	2 AAW77951	AAW77951 Flt-3 and
46	701	100.0	281	2 AAW77939	AAW77939 Chimeric
47	701	100.0	286	2 AAW83299	AAW83299 Human flt
48	701	100.0	286	2 AAW83303	AAW83303 Human flt
49	701	100.0	286	2 AAW77940	AAW77940 Chimeric
50	701	100.0	286	2 AAW77952	AAW77952 Flt-3 and
51	701	100.0	313	2 AAW83294	AAW83294 Human flt
52	701	100.0	314	2 AAW83293	AAW83293 Human flt
53	701	100.0	314	2 AAW78004	AAW78004 Dimeric F
54	701	100.0	325	2 AAW83292	AAW83292 Human flt
55	701	100.0	332	2 AAW83295	AAW83295 Human flt
56	701	100.0	334	2 AAW83290	AAW83290 Human flt
57	701	100.0	334	2 AAW77821	AAW77821 G-CSF-Flt
58	701	100.0	340	2 AAW83291	AAW83291 Human flt
59	701	100.0	344	2 AAW83304	AAW83304 Human flt
60	701	100.0	349	2 AAW83289	AAW83289 Human flt
61	701	100.0	349	2 AAW83287	AAW83287 Human flt
62	701	100.0	349	2 AAW83286	AAW83286 Human flt
63	701	100.0	349	2 AAW83288	AAW83288 Human flt
64	701	100.0	349	2 AAW78003	AAW78003 G-CSF/IGG
65	701	100.0	349	2 AAW78005	AAW78005 Flt3L 1-1
66	701	100.0	377	2 AAW78124	AAW78124 Chimeric
67	701	100.0	460	2 AAW78007	AAW78007 Trimeric
68	701	100.0	523	2 AAW78008	AAW78008 Trimeric
69	701	100.0	523	2 AAW78006	AAW78006 Trimeric
70	701	100.0	544	2 AAW78118	AAW78118 Trimeric

ALIGNMENTS

RESULT 1	
ID	AAW77910
XX	AAW77910 standard; protein; 135 AA.
AC	AAW77910;
XX	
XX	
DT	24-NOV-1998 (first entry)
XX	
XX	Human flt3 ligand pMON32329.pcp.
XX	
XX	Haematopoietic receptor agonist; flt3 receptor agonist; flt3 ligand;
KW	human; chimeric protein; stem cell expansion; tumour; infection;
KW	autoimmune disease; haematopoietic disorder; therapy; dendritic cell;
KW	pMON32329.pcp.
XX	
OS	Homo sapiens.
XX	
XX	WO9817810-A2.
PN	
XX	
XX	
PD	30-APR-1998.
XX	
XX	
PF	23-OCT-1997; 97WO-US020037.
XX	

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PR 25-OCT-1996; 96US-0029629P.
XX (SEAR ) SEARLE & CO G D.
XX McWherter CA, Feng Y, McKearn JP, Summers NL, Staten NR;
XX Streeter PR, Minnerly JC, Minster NI, Woulfe SL;
XX WPI; 1998-261504/23.
XX N-PSDB; AAV55203.
XX
XX Multi-functional chimeric haematopoietic receptor agonist - useful to
XX treat haematopoietic disorders, tumours, infections or autoimmune
XX diseases.
XX Example 100; Page 206; 841pp; English.
XX
XX Protein pMON32329.pep is a human flt3 ligand encoded by plasmid
XX pMON32329 (see AAV55203), and is suitable for expression in Escherichia
XX coli. The invention relates to multi-functional chimeric haematopoietic
XX receptor agonists (see e.g. AAV7780-822) that may include flt3 receptor
XX agonists comprising sequence- rearranged flt3 ligand (see AAV7782).
XX These novel chimeric agonists can be used to stimulate the production of
XX haematopoietic cells in a patient, for the ex vivo expansion of
XX haematopoietic cells, for the production of dendritic cells and to treat
XX haematopoietic disorders, tumours, infection or autoimmune diseases
XX
XX Sequence 135 AA;
XX
XX Query Match 100.0%; Score 701; DB 2; Length 135;
XX Best Local Similarity 100.0%; Pred. No. 2.4e-76;
XX Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX 1 QDCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
XX 3 QDCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 62
XX
XX 61 TVAGSKMGGLLERNVTEHFVTKCAFQPPSCILRFVQTNISRLLOETSEQLVAKPWITR 120
XX 63 TVAGSKMGGLLERNVTEHFVTKCAFQPPSCILRFVQTNISRLLOETSEQLVAKPWITR 122
XX
XX 121 QNFSRCLELCQP 133
XX 123 QNFSRCLELCQP 135
XX
XX RESULT 2
XX AAW77912
XX ID AAW77912 standard; protein; 135 AA.
XX AC AAW77912;
XX
XX 24-NOV-1998 (first entry)
XX
XX Human flt3 ligand pMON32341.pep.
XX
XX Haematopoietic receptor agonist; flt3 receptor agonist; flt3 ligand;
XX human; chimeric protein; stem cell expansion; tumour; infection;
XX autoimmune disease; haematopoietic disorder; therapy; dendritic cell;
XX pMON32341.pep.
XX
XX Homo sapiens.
XX
XX WO9817810-A2.
XX
XX 30-APR-1998.
XX
XX 23-OCT-1997; 97WO-US020037.
XX
XX 25-OCT-1996; 96US-0029629P.
XX (SEAR ) SEARLE & CO G D.
XX
XX McWherter CA, Feng Y, McKearn JP, Summers NL, Staten NR;

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PI Streeter PR, Minnerly JC, Minster NI, Woulfe SL;
XX WPI; 1998-261504/23.
XX N-PSDB; AAV55205.
XX
XX Multi-functional chimeric haematopoietic receptor agonist - useful to
XX treat haematopoietic disorders, tumours, infections or autoimmune
XX diseases.
XX Example 100; Page 206; 841pp; English.
XX
XX Protein pMON32341.pep is a human flt3 ligand encoded by plasmid
XX pMON32341 (see AAV55205), and is suitable for expression in Escherichia
XX coli. The invention relates to multi-functional chimeric haematopoietic
XX receptor agonists (see e.g. AAV7780-822) that may include flt3 receptor
XX agonists comprising sequence- rearranged flt3 ligand (see AAV7782).
XX These novel chimeric agonists can be used to stimulate the production of
XX haematopoietic cells in a patient, for the ex vivo expansion of
XX haematopoietic cells, for the production of dendritic cells and to treat
XX haematopoietic disorders, tumours, infection or autoimmune diseases
XX
XX Sequence 135 AA;
XX
XX Query Match 100.0%; Score 701; DB 2; Length 135;
XX Best Local Similarity 100.0%; Pred. No. 2.4e-76;
XX Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX 1 QDCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
XX 3 QDCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 62
XX
XX 61 TVAGSKMGGLLERNVTEHFVTKCAFQPPSCILRFVQTNISRLLOETSEQLVAKPWITR 120
XX 63 TVAGSKMGGLLERNVTEHFVTKCAFQPPSCILRFVQTNISRLLOETSEQLVAKPWITR 122
XX
XX 121 QNFSRCLELCQP 133
XX 123 QNFSRCLELCQP 135
XX
XX RESULT 3
XX AAW69034
XX ID AAW69034 standard; protein; 135 AA.
XX AC AAW69034;
XX
XX 01-OCT-1998 (first entry)
XX
XX Human flt-3 receptor agonist pMON32329.pep.
XX
XX Human; flt-3 receptor agonist; haematopoietic cell stimulation; cancer;
XX bone marrow reconstitution; haematological disease; immune deficiency;
XX drug-induced myelosuppression; renal dialysis; gene therapy; infection;
XX congenital metabolic disease; neurological disease; therapy;
XX dendritic cell production.
XX
XX Homo sapiens.
XX
XX WO9818923-A1.
XX
XX 07-MAY-1998.
XX
XX 23-OCT-1997; 97WO-US018700.
XX
XX 25-OCT-1996; 96US-0030094P.
XX
XX (SEAR ) SEARLE & CO G D.
XX
XX McWherter CA, Feng Y, McKearn JP, Staten NR, Streeter PR;
XX Woulfe SL, Minster NI, Minnerly JC;
XX WPI; 1998-272218/24.
XX N-PSDB; AAV69034.
XX

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 8, 2004, 17:07:57 ; Search time 26.7446 Seconds
(without alignments)
1307.583 Million cell updates/sec

Title: US-08-994-468-6_COPY_28_160

Perfect score: 701

Sequence: 1 QDCSFQHSPISSDFAVKIRELSDYLLQDPYPTVASNLQDEELCGGLWRLVLAQRWVERLK 133

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1073127 seqs, 262937947 residues

Total number of hits satisfying chosen parameters: 1073127

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA:*

- 1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
- 2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
- 3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
- 4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep.*
- 5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
- 6: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep.*
- 7: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
- 8: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
- 9: /cgn2_6/ptodata/1/pubpaa/US09A_PUBCOMB.pep.*
- 10: /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep.*
- 11: /cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep.*
- 12: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
- 13: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep.*
- 14: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep.*
- 15: /cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep.*
- 16: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
- 17: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*
- 18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	701	100.0	156	14	US-10-053-355A-1
2	701	100.0	209	9	US-09-904-536-11
3	701	100.0	212	9	US-09-904-536-10
4	701	100.0	235	8	US-08-994-468-6
5	701	100.0	235	9	US-09-448-378-1
6	701	100.0	235	9	US-09-983-806-6
7	701	100.0	235	9	US-09-904-536-1
8	701	100.0	235	12	US-10-643-384-2
9	701	100.0	235	13	US-10-095-449-6
10	701	100.0	235	14	US-10-241-927-2
11	701	100.0	235	14	US-10-314-035-6
12	701	100.0	235	16	US-10-401-364-1
13	697	99.4	209	9	US-09-904-536-1
14	697	99.4	209	9	US-09-904-536-12
15	697	99.4	209	9	US-09-904-536-14

16	697	99.4	209	9	US-09-904-536-17	Sequence 17, Appl
17	695	99.1	209	9	US-09-904-536-11	Sequence 11, Appl
18	695	99.1	209	9	US-09-904-536-15	Sequence 15, Appl
19	695	99.1	235	15	US-10-116-275-174	Sequence 174, Appl
20	695	99.1	235	15	US-10-440-464-60	Sequence 60, Appl
21	694	99.0	209	9	US-09-904-536-13	Sequence 13, Appl
22	693	98.9	209	9	US-09-904-536-8	Sequence 8, Appl
23	687	98.0	209	9	US-09-904-536-16	Sequence 16, Appl
24	581	82.9	265	14	US-10-218-654-49	Sequence 49, Appl
25	581	82.9	265	14	US-10-262-439-49	Sequence 49, Appl
26	581	82.9	268	14	US-10-218-654-23	Sequence 23, Appl
27	581	82.9	268	14	US-10-262-439-23	Sequence 23, Appl
28	581	82.9	291	14	US-10-218-654-44	Sequence 44, Appl
29	581	82.9	291	14	US-10-262-439-44	Sequence 44, Appl
30	581	82.9	294	14	US-10-218-654-7	Sequence 7, Appl
31	581	82.9	294	14	US-10-262-439-7	Sequence 7, Appl
32	508	72.5	231	8	US-08-994-468-2	Sequence 2, Appl
33	508	72.5	231	9	US-09-448-378-2	Sequence 2, Appl
34	508	72.5	231	9	US-09-983-806-2	Sequence 2, Appl
35	508	72.5	231	13	US-10-095-449-2	Sequence 2, Appl
36	508	72.5	231	14	US-10-314-035-2	Sequence 2, Appl
37	508	72.5	231	16	US-10-401-364-2	Sequence 2, Appl
38	502.5	71.7	137	9	US-09-904-536-19	Sequence 19, Appl
39	482	68.8	250	14	US-10-218-654-31	Sequence 31, Appl
40	482	68.8	250	14	US-10-262-439-31	Sequence 31, Appl
41	482	68.8	276	14	US-10-218-654-26	Sequence 26, Appl
42	482	68.8	276	14	US-10-262-439-26	Sequence 26, Appl
43	77	11.0	345	12	US-10-335-977-7085	Sequence 7085, Ap
44	77	11.0	535	12	US-10-335-977-7086	Sequence 7086, Ap
45	77	11.0	872	9	US-09-815-242-11563	Sequence 11563, A

ALIGNMENTS

RESULT 1
US-10-053-355A-1
; Sequence 1, Application US/10053355A
; Publication No. US20030077824A1
; GENERAL INFORMATION:
; APPLICANT: Rossi, Alex
; TITLE OF INVENTION: Production of Cultured Human Mast Cells and Basophils for High Th
; FILE REFERENCE: A-70882/RMS/AMS
; CURRENT APPLICATION NUMBER: US/10/053,355A
; CURRENT FILING DATE: 2002-06-18
; PRIOR FILING DATE: 2001-08-31
; NUMBER OF SEQ ID NOS: 42
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-053-355A-1

Query Match 100.0%; Score 701; DB 14; Length 156;
Best Local Similarity 100.0%; Pred. No. 2e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 QDCSFQHSPISSDFAVKIRELSDYLLQDPYPTVASNLQDEELCGGLWRLVLAQRWVERLK 60
Db 3 QDCSFQHSPISSDFAVKIRELSDYLLQDPYPTVASNLQDEELCGGLWRLVLAQRWVERLK 62
QY 61 TVAGSMQGLLRVNTVTEHFVTKCAFPDPPCLRVQTNISLLOETSEQLVAKPWITR 120
Db 63 TVAGSMQGLLRVNTVTEHFVTKCAFPDPPCLRVQTNISLLOETSEQLVAKPWITR 122
QY 121 QNFSRCLELQCCP 133
Db 123 QNFSRCLELQCCP 135

RESULT 2

US-09-904-536-18
; Sequence 18, Application US/09904536
; Patent No. US20020111475A1
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent in Ver. 2.1
; SEQ ID NO 18
; TYPE: PRT
; LENGTH: 209
; ORGANISM: Homo sapiens
US-09-904-536-18

Query Match 100.0%; Score 701; DB 9; Length 209;
Best Local Similarity 100.0%; Pred. No. 2.9e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDPFAVKIRELSYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWNERLK 60
DB 2 QDCSFQHSPISSDPFAVKIRELSYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWNERLK 61
QY 61 TVAGSKMQGLLERVNTTEIHFTVKCAFPQPPSCILRFVQTNISRLQETSQVLAQKFWITR 120
DB 62 TVAGSKMQGLLERVNTTEIHFTVKCAFPQPPSCILRFVQTNISRLQETSQVLAQKFWITR 121
QY 121 QNFSRCLELOQCP 133
DB 122 QNFSRCLELOQCP 134

RESULT 3

US-09-904-536-10
; Sequence 10, Application US/09904536
; Patent No. US20020111475A1
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
; PRIOR FILING DATE: 1999-07-02
; SOFTWARE: Patent in Ver. 2.1
; SEQ ID NO 10
; LENGTH: 212
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-904-536-10

Query Match 100.0%; Score 701; DB 9; Length 212;
Best Local Similarity 100.0%; Pred. No. 2.9e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDPFAVKIRELSYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWNERLK 60
DB 5 QDCSFQHSPISSDPFAVKIRELSYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWNERLK 64
QY 61 TVAGSKMQGLLERVNTTEIHFTVKCAFPQPPSCILRFVQTNISRLQETSQVLAQKFWITR 120
DB 65 TVAGSKMQGLLERVNTTEIHFTVKCAFPQPPSCILRFVQTNISRLQETSQVLAQKFWITR 124
QY 121 QNFSRCLELOQCP 133

Db 125 QNFSRCLELOQCP 137

RESULT 4

US-08-994-468-6
; Sequence 6, Application US/08994468
; Publication No. US20030148516A1
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/994,468
; FILING DATE: 19-Dec-1997
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/162,407
; FILING DATE: <Unknown>
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 587-0430
; TELEX: 756822
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-08-994-468-6

Query Match 100.0%; Score 701; DB 8; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDPFAVKIRELSYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWNERLK 60
DB 28 QDCSFQHSPISSDPFAVKIRELSYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWNERLK 87
QY 61 TVAGSKMQGLLERVNTTEIHFTVKCAFPQPPSCILRFVQTNISRLQETSQVLAQKFWITR 120
DB 88 TVAGSKMQGLLERVNTTEIHFTVKCAFPQPPSCILRFVQTNISRLQETSQVLAQKFWITR 147
QY 121 QNFSRCLELOQCP 133
DB 148 QNFSRCLELOQCP 160

RESULT 5

US-09-448-378-1

```
; Sequence 1, Application US/09448378
; Patent No. US20020034517A1
; GENERAL INFORMATION:
; APPLICANT: Brasel, Kenneth
; TITLE OF INVENTION: Dendritic Cell Stimulatory Factor
; FILE REFERENCE: 2836-D
; - CURRENT APPLICATION NUMBER: US/09/448,378
; - CURRENT FILING DATE: 1999-11-23
; - NUMBER OF SEQ ID NOS: 2
; SOFTWARE: Patent in version 3.0
; SEQ ID NO 1
; LENGTH: 235
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-448-378-1

Query Match      100.0%; Score 701; DB 9; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 60
Db 28 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 87
QY 61 TVAGSKMOGLLERVNTTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 120
Db 88 TVAGSKMOGLLERVNTTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 147
QY 121 QNFSRCLELQCCP 133
Db 148 QNFSRCLELQCCP 160

RESULT 6
US-09-983-806-6
; Sequence 6, Application US/09983806
; Patent No. US20020107365A1
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA: US/09/983,806
; APPLICATION NUMBER: US/09/983,806
; FILING DATE: 25-Oct-2001
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/444,626
; FILING DATE: 19-May-1995
; APPLICATION NUMBER: US 08/162,407
; FILING DATE: 03-DEC-1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C

; Sequence 1, Application US/09904536
; Patent No. US20020111475A1
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent in Ver. 2.1
; SEQ ID NO 1
; LENGTH: 235
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-904-536-1

Query Match      100.0%; Score 701; DB 9; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 60
Db 28 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 87
QY 61 TVAGSKMOGLLERVNTTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 120
Db 88 TVAGSKMOGLLERVNTTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 147
QY 121 QNFSRCLELQCCP 133
Db 148 QNFSRCLELQCCP 160

RESULT 7
US-09-904-536-1
; Sequence 1, Application US/09904536
; Patent No. US20020111475A1
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent in Ver. 2.1
; SEQ ID NO 1
; LENGTH: 235
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-904-536-1

Query Match      100.0%; Score 701; DB 9; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 60
Db 28 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 87
QY 61 TVAGSKMOGLLERVNTTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 120
Db 88 TVAGSKMOGLLERVNTTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 147
QY 121 QNFSRCLELQCCP 133
Db 148 QNFSRCLELQCCP 160

RESULT 8
US-10-643-384-2
; Sequence 2, Application US/10643384
; Publication No. US20040037845A1
; GENERAL INFORMATION:
```

```

; APPLICANT: Brasel, Kenneth A.
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Maraskovsky, Eugene
; APPLICANT: McKenna, Hilary J.
; APPLICANT: Lynch, David H.
; TITLE OF INVENTION: THE USE OF FLT3-LIGAND IN THE TREATMENT OF INFECTION
; FILE REFERENCE: 2836-H
; CURRENT APPLICATION NUMBER: US/10/643,384
; CURRENT FILING DATE: 2003-08-19
; PRIOR APPLICATION NUMBER: 10/241,927
; PRIOR FILING DATE: 2002-09-11
; PRIOR APPLICATION NUMBER: 09/444,027
; PRIOR FILING DATE: 1999-11-19
; PRIOR APPLICATION NUMBER: 09/154,903
; PRIOR FILING DATE: 1998-09-17
; PRIOR APPLICATION NUMBER: 08/725,540
; PRIOR FILING DATE: 1996-10-03
; PRIOR APPLICATION NUMBER: 08/539,142
; PRIOR FILING DATE: 1995-10-04
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: Patent in version 3.2
; SEQ ID NO 2
; LENGTH: 235
; TYPE: PRT
; ORGANISM: Homo sapien
; US-10-643-384-2

Query Match      100.0%; Score 701; DB 12; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWVERLK 60
DB 28 QDCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWVERLK 87

QY 61 TVAGSKMGLLERNVTEIHFVTKAFOPPPSCILRFVQTNISRLLOETSEQLVALKPWITR 120
DB 88 TVAGSKMGLLERNVTEIHFVTKAFOPPPSCILRFVQTNISRLLOETSEQLVALKPWITR 147

QY 121 QNFSRCLELQCP 133
DB 148 QNFSRCLELQCP 160

RESULT 9
US-10-095-449-6
; Sequence 6, Application US/10095449
; Publication No. US20020160004A1
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESS: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/095,449
; FILING DATE: 13-Mar-2002
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/669,692
; FILING DATE: 24-JUN-1998
; APPLICATION NUMBER: US/08/162,407

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; FILING DATE: December 3, 1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 587-0430
; TELEFAX: (206) 233-0644
; TELEX: 756822
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 6:
; US-10-095-449-6

Query Match      100.0%; Score 701; DB 13; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWVERLK 60
DB 28 QDCSFQHSPISSDPAVKIRELSYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWVERLK 87

QY 61 TVAGSKMGLLERNVTEIHFVTKAFOPPPSCILRFVQTNISRLLOETSEQLVALKPWITR 120
DB 88 TVAGSKMGLLERNVTEIHFVTKAFOPPPSCILRFVQTNISRLLOETSEQLVALKPWITR 147

QY 121 QNFSRCLELQCP 133
DB 148 QNFSRCLELQCP 160

RESULT 10
US-10-241-927-2
; Sequence 2, Application US/10241927
; Publication No. US20030113341A1
; GENERAL INFORMATION:
; APPLICANT: Lynch, David H.
; APPLICANT: Borges, Luis
; APPLICANT: Miller, Robert E.
; APPLICANT: Maliszewski, Charles R.
; TITLE OF INVENTION: THE USE OF FLT3-LIGAND IN THE TREATMENT OF CANCER
; FILE REFERENCE: 2836-F
; CURRENT APPLICATION NUMBER: US/10/241,927
; CURRENT FILING DATE: 2002-09-11
; PRIOR APPLICATION NUMBER: US 09/444,027
; PRIOR FILING DATE: 1999-11-19
; PRIOR APPLICATION NUMBER: US 09/154,903
; PRIOR FILING DATE: 1998-09-17
; PRIOR APPLICATION NUMBER: US 08/725,540
; PRIOR FILING DATE: 1996-10-03
; PRIOR APPLICATION NUMBER: US 08/539,142
; PRIOR FILING DATE: 1995-10-04
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: Patent in version 3.1
; SEQ ID NO 2
; LENGTH: 235
; TYPE: PRT
; ORGANISM: homo sapiens
; US-10-241-927-2

Query Match      100.0%; Score 701; DB 14; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMLK 60
 DB 28 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMLK 87
 QY 61 TVAGSKMQGLLERNVTEHFVTKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 120
 DB 88 TVAGSKMQGLLERNVTEHFVTKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 147
 QY 121 QNFSRCLELQCP 133
 DB 148 QNFSRCLELQCP 160

RESULT 11
 US-10-314-035-6
 ; Sequence 6, Application US/10314035
 ; Publication No. US20030157069A1
 ; GENERAL INFORMATION:
 ; APPLICANT: LYMAN, Stewart D.
 ; APPLICANT: BECKMANN, M. Patricia
 ; TITLE OF INVENTION: METHODS OF USING FLT3-LIGAND IN HEMATOPOIETIC CELL TRANSPLANTATION
 ; FILE REFERENCE: 2813-P
 ; CURRENT APPLICATION NUMBER: US/10/314,035
 ; CURRENT FILING DATE: 2002-12-05
 ; PRIOR APPLICATION NUMBER: US 08/994,468
 ; PRIOR FILING DATE: 1997-12-19
 ; PRIOR APPLICATION NUMBER: US 08/444,627
 ; PRIOR FILING DATE: 1995-05-19
 ; PRIOR APPLICATION NUMBER: US 08/243,545
 ; PRIOR FILING DATE: 1994-05-11
 ; PRIOR APPLICATION NUMBER: US 08/209,502
 ; PRIOR FILING DATE: 1994-03-07
 ; NUMBER OF SEQ ID NOS: 8
 ; SOFTWARE: PatentIn version 3.1
 ; SEQ ID NO 6
 ; LENGTH: 235
 ; TYPE: PRT
 ; ORGANISM: Homo sapien
 US-10-314-035-6

Query Match 100.0%; Score 701; DB 14; Length 235;
 Best Local Similarity 100.0%; Pred. No. 3.3e-74;
 Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMLK 60
 DB 28 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMLK 87
 QY 61 TVAGSKMQGLLERNVTEHFVTKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 120
 DB 88 TVAGSKMQGLLERNVTEHFVTKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 147
 QY 121 QNFSRCLELQCP 133
 DB 148 QNFSRCLELQCP 160

RESULT 12
 US-10-401-364-1
 ; Sequence 1, Application US/10401364
 ; Publication No. US20040022760A1
 ; GENERAL INFORMATION:
 ; APPLICANT: McKenna, Hilary J.
 ; APPLICANT: Liebowitz, David N.
 ; APPLICANT: Maliszewski, Charles R.
 ; TITLE OF INVENTION: METHODS OF USING FLT3-LIGAND IN IMMUNIZATION PROTOCOLS
 ; FILE REFERENCE: 3399-B
 ; CURRENT APPLICATION NUMBER: US/10/401,364
 ; CURRENT FILING DATE: 2003-03-26
 ; PRIOR APPLICATION NUMBER: US 60/368,263
 ; PRIOR FILING DATE: 2002-03-26
 ; PRIOR APPLICATION NUMBER: US 60/427,835

; PRIOR FILING DATE: 2002-11-19
 ; NUMBER OF SEQ ID NOS: 4
 ; SOFTWARE: PatentIn version 3.1
 ; SEQ ID NO 1
 ; LENGTH: 235
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-401-364-1
 Query Match 100.0%; Score 701; DB 16; Length 235;
 Best Local Similarity 100.0%; Pred. No. 3.3e-74;
 Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMLK 60
 DB 28 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMLK 87
 QY 61 TVAGSKMQGLLERNVTEHFVTKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 120
 DB 88 TVAGSKMQGLLERNVTEHFVTKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 147
 QY 121 QNFSRCLELQCP 133
 DB 148 QNFSRCLELQCP 160

RESULT 13
 US-09-904-536-9
 ; Sequence 9, Application US/09904536
 ; Patent No. US20020111475A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Graddis, Thomas J.
 ; APPLICANT: McGrew, Jeffrey T.
 ; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
 ; FILE REFERENCE: 03260.0028
 ; CURRENT APPLICATION NUMBER: US/09/904,536
 ; CURRENT FILING DATE: 2001-07-16
 ; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
 ; PRIOR FILING DATE: 1999-07-02
 ; NUMBER OF SEQ ID NOS: 20
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 9
 ; LENGTH: 209
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-09-904-536-9

Query Match 99.4%; Score 697; DB 9; Length 209;
 Best Local Similarity 99.2%; Pred. No. 8.5e-74;
 Matches 132; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMLK 60
 DB 2 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMLK 61
 QY 61 TVAGSKMQGLLERNVTEHFVTKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 120
 DB 62 TVTGSQMQLLERNVTEHFVTKAFQPPPSCLRFVQTNISRLLOETSEQLVALKPWITR 121
 QY 121 QNFSRCLELQCP 133
 DB 122 QNFSRCLELQCP 134

RESULT 14
 US-09-904-536-12
 ; Sequence 12, Application US/09904536
 ; Patent No. US20020111475A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Graddis, Thomas J.
 ; APPLICANT: McGrew, Jeffrey T.
 ; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
 ; FILE REFERENCE: 03260.0028

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; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 12
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-904-536-12

Query Match          99.4%; Score 697; DB 9; Length 209;
Best Local Similarity 99.2%; Pred. No. 8.5e-74;
Matches 132; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY      1 QDCSFQHSPISSDFAVKIRELSDYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
Db      1 QDCSFQHSPISSDFAVKIRELSDYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWMERLK 61

QY      61 TVAGSKMQGLLERVNTIEHFVTKCAFPQPPSCLRFVQTNISRLQETSEQLVALKPWITR 120
Db      61 TVAGSKMQGLLERVNTIEHFVTKCAFPQPPSCLRFVQTNISRLQETSEQLVALKPWITR 121

QY      121 QNFSRCLELQCCP 133
Db      121 QNFSRCLELQCCP 134

RESULT 15
US-09-904-536-14
; Sequence 14, Application US/09904536
; Patent No. US20020111475A1
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 14
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-904-536-14

Query Match          99.4%; Score 697; DB 9; Length 209;
Best Local Similarity 99.2%; Pred. No. 8.5e-74;
Matches 132; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 QDCSFQHSPISSDFAVKIRELSDYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
Db      1 QDCSFQHSPISSDFAVKIRELSDYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWMERLK 61

QY      61 TVAGSKMQGLLERVNTIEHFVTKCAFPQPPSCLRFVQTNISRLQETSEQLVALKPWITR 120
Db      61 TVAGSKMQGLLERVNTIEHFVTKCAFPQPPSCLRFVQTNISRLQETSEQLVALKPWITR 121

QY      121 QNFSRCLELQCCP 133
Db      121 QNFSRCLELQCCP 134

Search completed: April 8, 2004, 17:17:21
JOB time : 27.7446 secs
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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 8, 2004, 17:03:57 ; Search time 11.9266 Seconds
(without alignments)
575.708 Million cell updates/sec

Title: US-08-994-468-6_COPY_28_160
Perfect score: 701
Sequence: 1 QDCSFQHSPISSDFAVKIRE.....LKPWTRQNSRCLELOQCP 133

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	701	100.0	209	3	US-09-109-100-18
2	701	100.0	212	3	US-09-109-100-10
3	701	100.0	235	1	US-08-243-545-6
4	701	100.0	235	2	US-08-993-962-6
5	701	100.0	235	3	US-09-160-841-6
6	701	100.0	235	3	US-09-109-100-1
7	701	100.0	235	4	US-08-669-692-6
8	701	100.0	235	4	US-08-444-626-6
9	701	100.0	235	5	PCT-US94-05365-6
10	697	99.4	209	3	US-09-109-100-9
11	697	99.4	209	3	US-09-109-100-12
12	697	99.4	209	3	US-09-109-100-14
13	697	99.4	209	3	US-09-109-100-17
14	695	99.1	209	3	US-09-109-100-11
15	695	99.1	209	3	US-09-109-100-15
16	694	99.0	209	3	US-09-109-100-13
17	693	98.9	209	3	US-09-109-100-8
18	687	98.0	209	3	US-09-109-100-16
19	581	82.9	265	4	US-09-322-409-49
20	581	82.9	265	4	US-09-451-527-49
21	581	82.9	268	4	US-09-322-409-23
22	581	82.9	268	4	US-09-451-527-23
23	581	82.9	291	4	US-09-322-409-44
24	581	82.9	291	4	US-09-451-527-44
25	581	82.9	294	4	US-09-322-409-7
26	581	82.9	294	4	US-09-451-527-7
27	508	72.5	231	1	US-08-243-545-7

28	508	72.5	231	1	US-08-243-545-2	Sequence 2, Appli
29	508	72.5	231	2	US-08-993-962-2	Sequence 2, Appli
30	508	72.5	231	3	US-09-160-841-2	Sequence 2, Appli
31	508	72.5	231	4	US-08-669-692-2	Sequence 2, Appli
32	508	72.5	231	4	US-08-444-626-2	Sequence 2, Appli
33	508	72.5	231	5	PCT-US94-05365-2	Sequence 2, Appli
34	508	72.5	231	5	PCT-US95-03866-6	Sequence 6, Appli
35	502.5	71.7	137	3	US-09-109-100-19	Sequence 19, Appl
36	482	68.8	250	4	US-09-322-409-31	Sequence 31, Appl
37	482	68.8	250	4	US-09-451-527-31	Sequence 31, Appl
38	482	68.8	276	4	US-09-322-409-26	Sequence 26, Appl
39	482	68.8	276	4	US-09-451-527-26	Sequence 26, Appl
40	150	21.4	42	5	PCT-US94-05150-17	Sequence 17, Appl
41	79.5	11.3	2618	3	US-09-413-814-28	Sequence 28, Appl
42	79	11.3	28	5	PCT-US94-05150-12	Sequence 12, Appl
43	71	10.1	22	5	PCT-US94-05150-10	Sequence 10, Appl
44	70.5	10.1	873	2	US-08-912-129A-61	Sequence 61, Appl
45	69	9.8	872	1	US-08-451-715A-8	Sequence 8, Appl

ALIGNMENTS

RESULT 1
US-09-109-100-18
; Sequence 18, Application US/09109100C
; Patent No. 6291861
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/109,100C
; CURRENT FILING DATE: 1998-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 18
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-18

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Best Local Similarity 100.0%; Pred. No. 5.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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DB 2 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNIQDEELCGGLWRLVLAQRMWRLK 61
QY 61 TVAGSKMGGLLERYNTEHFVTKCAFQPPSPCLFVQTNISRLLOFTSEQLVAKPWITR 120
DB 62 TVAGSKMGGLLERYNTEHFVTKCAFQPPSPCLFVQTNISRLLOFTSEQLVAKPWITR 121

QY 121 QNFSRCLELOQCP 133
DB 122 QNFSRCLELOQCP 134

RESULT 2
US-09-109-100-10
; Sequence 10, Application US/09109100C
; Patent No. 6291861
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/109,100C
; CURRENT FILING DATE: 1998-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 10

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; LENGTH: 212
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-10

Query Match      100.0%; Score 701; DB 3; Length 212;
Best Local Similarity 100.0%; Pred. No. 5.7e-80;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSDYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
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QY 61 TVAGSKMOGLLRRVNTTEIHFTVKCAFQPPPPCLRFVQTNISRLLOETSEQLVALKPMWTR 120
Db 65 TVAGSKMOGLLRRVNTTEIHFTVKCAFQPPPPCLRFVQTNISRLLOETSEQLVALKPMWTR 124
QY 121 QNFSRCLELQCOQ 133
Db 125 QNFSRCLELQCOQ 137

RESULT 3
US-08-243-545-6
; Sequence 6, Application US/08243545
; Patent No. 5554512
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/243,545
; FILING DATE: 11-MAY-1994
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/162,407
; FILING DATE: 03-DEC-1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 587-0430
; TELEFAX: (206) 233-0644
; TELEX: 756822
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids
; TYPE: amino acid
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; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-243-545-6

Query Match      100.0%; Score 701; DB 1; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSDYLLQDYPTVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
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QY 61 TVAGSKMOGLLRRVNTTEIHFTVKCAFQPPPPCLRFVQTNISRLLOETSEQLVALKPMWTR 120
Db 88 TVAGSKMOGLLRRVNTTEIHFTVKCAFQPPPPCLRFVQTNISRLLOETSEQLVALKPMWTR 147
QY 121 QNFSRCLELQCOQ 133
Db 148 QNFSRCLELQCOQ 160

RESULT 4
US-08-993-962-6
; Sequence 6, Application US/08993962
; Patent No. 5843423
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,962
; FILING DATE: December 18, 1997
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/162,407
; FILING DATE: December 3, 1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 587-0430
; TELEFAX: (206) 233-0644
; TELEX: 756822
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
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; MOLECULE TYPE: protein
US-08-993-962-6
Query Match      100.0%; Score 701; DB 2; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSVLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 60
Db 28 QDCSFQHSPISSDFAVKIRELSVLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 87

QY 61 TVAGSKMQGLLERVNTIHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 120
Db 88 TVAGSKMQGLLERVNTIHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 147

QY 121 QNFSRCLELOQCP 133
Db 148 QNFSRCLELOQCP 160

RESULT 5
US-09-160-841-6
; Sequence 6, Application US/09160841
; Patent No. 6190655
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation.
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/160,841
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/162,407
; FILING DATE: December 3, 1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 587-0430
; TELEFAX: (206) 233-0644
; TELEX: 756822
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-160-841-6
Query Match      100.0%; Score 701; DB 3; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSVLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 60
Db 28 QDCSFQHSPISSDFAVKIRELSVLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 87

QY 61 TVAGSKMQGLLERVNTIHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 120
Db 88 TVAGSKMQGLLERVNTIHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 147

QY 121 QNFSRCLELOQCP 133
Db 148 QNFSRCLELOQCP 160

RESULT 6
US-09-109-100-1
; Sequence 1, Application US/09109100C
; Patent No. 6291661
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/109,100C
; CURRENT FILING DATE: 1998-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 1
; LENGTH: 235
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-109-100-1
Query Match      100.0%; Score 701; DB 3; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSVLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 60
Db 28 QDCSFQHSPISSDFAVKIRELSVLLQDYPTVASNLQDEELCGGLWRLVLAQRWMERLK 87

QY 61 TVAGSKMQGLLERVNTIHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 120
Db 88 TVAGSKMQGLLERVNTIHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 147

QY 121 QNFSRCLELOQCP 133
Db 148 QNFSRCLELOQCP 160

RESULT 7
US-08-669-692-6
; Sequence 6, Application US/08669692
; Patent No. 6630143
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; US-08-669-692-6
Query Match      100.0%; Score 701; DB 3; Length 235;
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; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/669,692
; FILING DATE: 24-JUN-1996
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/162,407
; FILING DATE: December 3, 1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 587-0430
; TELEFAX: (206) 233-0644
; TELEX: 756822
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-669-692-6

Query Match 100.0%; Score 701; DB 4; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSFISDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWELVLAQRMWERLK 60
DB 28 QDCSFQHSFISDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWELVLAQRMWERLK 87
QY 61 TVAGSKMOGLLERNVTEIHFTVKCAFQPPPPCLRFVQTNISRLLOETSEQLVALKPWITR 120
DB 88 TVAGSKMOGLLERNVTEIHFTVKCAFQPPPPCLRFVQTNISRLLOETSEQLVALKPWITR 147
QY 121 QNFSRCLELQCOQ 133
DB 148 QNFSRCLELQCOQ 160

RESULT 8
US-08-444-626-6
; Sequence 6, Application US/08444626
; Patent No. 632424
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: Macintosh 7.0.1
; SOFTWARE: Microsoft Word, Version #5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/444,626
; FILING DATE: 19-MAY-1995

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; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/162,407
; FILING DATE: 03-DEC-1993
; APPLICATION NUMBER: 08/111,758
; FILING DATE: August 25, 1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/106,463
; FILING DATE: August 12, 1993
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/068,394
; FILING DATE: May 24, 1993
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: Malaska, Stephen L.
; REGISTRATION NUMBER: 32,655
; REFERENCE/DOCKET NUMBER: 2813-C
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 587-0430
; TELEFAX: (206) 233-0644
; TELEX: 756822
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-444-626-6

Query Match 100.0%; Score 701; DB 4; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSFISDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWELVLAQRMWERLK 60
DB 28 QDCSFQHSFISDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWELVLAQRMWERLK 87
QY 61 TVAGSKMOGLLERNVTEIHFTVKCAFQPPPPCLRFVQTNISRLLOETSEQLVALKPWITR 120
DB 88 TVAGSKMOGLLERNVTEIHFTVKCAFQPPPPCLRFVQTNISRLLOETSEQLVALKPWITR 147
QY 121 QNFSRCLELQCOQ 133
DB 148 QNFSRCLELQCOQ 160

RESULT 9
PCI-US94-05365-6
; Sequence 6, Application PC/TUS9405365
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Beckmann, M. Patricia
; TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
; STREET: 51 University Street
; CITY: Seattle
; STATE: Washington
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US94/05365
; FILING DATE: May 24, 1994
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: -to be assigned-

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FILING DATE: May 11, 1994
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/209,502
FILING DATE: March 7, 1994
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/162,407
FILING DATE: December 3, 1993
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/111,758
FILING DATE: August 25, 1993
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/068,394
FILING DATE: May 24, 1993
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Malaska, Stephen L.
REGISTRATION NUMBER: 32,655
REFERENCE/DOCKET NUMBER: 2813-B
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 587-0430
TELEFAX: (206) 233-0644
TELEX: 756822
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US94-05365-6

Query Match 100.0%; Score 701; DB 5; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMLK 60
DB 28 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMLK 87
QY 61 TVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 120
DB 88 TVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 147
QY 121 QNFSRCLELQCP 133
DB 148 QNFSRCLELQCP 160

RESULT 10
US-09-109-100-9
Sequence 9, Application US/09109100C
Patent No. 6291661
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
APPLICANT: McGrew, Jeffrey T.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 9
LENGTH: 209
TYPE: PRT
ORGANISM: Homo sapiens
US-09-109-100-9

Query Match 99.4%; Score 697; DB 3; Length 209;
Best Local Similarity 99.2%; Pred. No. 1.8e-79;
Matches 132; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMLK 60
DB 2 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMLK 61
QY 61 TVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 120
DB 62 TVTGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 121
QY 121 QNFSRCLELQCP 133
DB 122 QNFSRCLELQCP 134

RESULT 11
US-09-109-100-12
Sequence 12, Application US/09109100C
Patent No. 6291661
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
APPLICANT: McGrew, Jeffrey T.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 12
LENGTH: 209
TYPE: PRT
ORGANISM: Homo sapiens
US-09-109-100-12

Query Match 99.4%; Score 697; DB 3; Length 209;
Best Local Similarity 99.2%; Pred. No. 1.8e-79;
Matches 132; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMLK 60
DB 2 QDCSFQHSPISSDFAVKIRELSYLLQDYPTVASNLQDEELCGGLWRLVLAQRWMLK 61
QY 61 TVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 120
DB 62 TVAGSKMOGLLERNVTEHFVTKCAFQPPPSCLRFVQTNISRLLOETSEQLVAKPWITR 121
QY 121 QNFSRCLELQCP 133
DB 122 QNFSRCLELQCP 134

RESULT 12
US-09-109-100-14
Sequence 14, Application US/09109100C
Patent No. 6291661
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
APPLICANT: McGrew, Jeffrey T.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 14
LENGTH: 209
TYPE: PRT
ORGANISM: Homo sapiens
US-09-109-100-14

Query Match 99.4%; Score 697; DB 3; Length 209;
Best Local Similarity 99.2%; Pred. No. 1.8e-79;
Matches 132; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
DB 2 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 61

QY 61 TVAGSKMGLLERNVTEIHFTKCAFQPPSPCLRFVQTNISRLLOETSEQLVALKPWITR 120
DB 62 TVAGSKMGLLERNVTEIHFTKCAFQPPSPCLRFVQTNISRLLOETSEQLVALKPWITR 121

QY 121 QNFSRCLELQCP 133
DB 122 QNFSRCLELQCP 134

RESULT 13
US-09-109-100-17
; Sequence 17, Application US/09109100C
; Patent No. 6291661
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/109,100C
; CURRENT FILING DATE: 1998-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent in Ver. 2.1
; SEQ ID NO 17
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-17

Query Match 99.4%; Score 697; DB 3; Length 209;
Best Local Similarity 99.2%; Pred. No. 1.8e-79;
Matches 132; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
DB 2 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 61

QY 61 TVAGSKMGLLERNVTEIHFTKCAFQPPSPCLRFVQTNISRLLOETSEQLVALKPWITR 120
DB 62 TVAGSKMGLLERNVTEIHFTKCAFQPPSPCLRFVQTNISRLLOETSEQLVALKPWITR 121

QY 121 QNFSRCLELQCP 133
DB 122 QNFSRCLELQCP 134

RESULT 14
US-09-109-100-11
; Sequence 11, Application US/09109100C
; Patent No. 6291661
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/109,100C
; CURRENT FILING DATE: 1998-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent in Ver. 2.1
; SEQ ID NO 11
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-11

Query Match 99.1%; Score 695; DB 3; Length 209;

Best Local Similarity 99.2%; Pred. No. 3.2e-79;
Matches 132; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
DB 2 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 61

QY 61 TVAGSKMGLLERNVTEIHFTKCAFQPPSPCLRFVQTNISRLLOETSEQLVALKPWITR 120
DB 62 TVAGSKMGLLERNVTEIHFTKCAFQPPSPCLRFVQTNISRLLOETSEQLVALKPWITR 121

QY 121 QNFSRCLELQCP 133
DB 122 QNFSRCLELQCP 134

RESULT 15
US-09-109-100-15
; Sequence 15, Application US/09109100C
; Patent No. 6291661
; GENERAL INFORMATION:
; APPLICANT: Graddis, Thomas J.
; APPLICANT: McGrew, Jeffrey T.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
; FILE REFERENCE: 03260.0028
; CURRENT APPLICATION NUMBER: US/09/109,100C
; CURRENT FILING DATE: 1998-07-02
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent in Ver. 2.1
; SEQ ID NO 15
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-15

Query Match 99.1%; Score 695; DB 3; Length 209;
Best Local Similarity 99.2%; Pred. No. 3.2e-79;
Matches 132; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
DB 2 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 61

QY 61 TVAGSKMGLLERNVTEIHFTKCAFQPPSPCLRFVQTNISRLLOETSEQLVALKPWITR 120
DB 62 TVAGSKMGLLERNVTEIHFTKCAFQPPSPCLRFVQTNISRLLOETSEQLVALKPWITR 121

QY 121 QNFSRCLELQCP 133
DB 122 QNFSRCLELQCP 134

Search completed: April 8, 2004, 17:09:12
Job time : 12.9266 secs